

APPENDIX I2

VEHICLE MILES TRAVELED ANALYSIS

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FROM: Alex So, Urban Crossroads
JOB NO: 15045-01 VMT

EUCLID MIXED USE SPECIFIC PLAN VEHICLE MILES TRAVELED (VMT) ANALYSIS

Urban Crossroads, Inc. is pleased to provide the following Vehicle Miles Traveled (VMT) Analysis for the Euclid Mixed Use Specific Plan (**Project**), which is located east of Euclid Avenue (SR-83), south of Schaefer Avenue, north of Ontario Ranch Road/Edison Avenue and west of Sultana Avenue in the City of Ontario.

PROJECT OVERVIEW

The underlying land uses are consistent with the City's recently adopted The Ontario Plan (**TOP**) 2050. It is our understanding that the Project is to consist of the following uses as shown in Attachment A:

1. Planning Area 1 (Business Park): 135,841 square feet of business park uses fronting Euclid Avenue (SR-83) and 399,135 square feet of warehousing use
2. Planning Area 2 (Business Park): 55,537 square feet of business park uses fronting Euclid Avenue (SR-83) and 450,784 square feet of warehousing use
3. Planning Area 3A (Business Park & Commercial Retail): 122,898 square feet of warehousing use and 30,225 square feet of commercial retail use (10,000 square feet of fast-food restaurant use without drive-through window, 10,000 square feet of fast-food restaurant with drive-through window, and 10,225 square feet of retail space)
4. Planning Area 3B (Multifamily Residential): 466 multifamily residential dwelling units
5. Planning Area 4 (Truck/Trailer Parking): 7.4 acres
6. Planning area 5 (Truck/Trailer Parking): 4.8 acres

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, consistent with Senate Bill 743 (SB 743). To comply with SB 743, the City of Ontario developed their own VMT methodologies and thresholds (Resolution No. 2020-071), which were adopted by City Council in June 2020 (**City Guidelines**) (1). This VMT analysis has been prepared based on the adopted City Guidelines.

PROJECT LEVEL SCREENING

City Guidelines state that a project may be determined to have a less than significant VMT impact and screened out of requiring a project level VMT analysis if it meets at least one of the City's VMT screening criteria. To aid in the VMT screening process and consistent with screening thresholds identified in the City Guidelines, the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool (**Screening Tool**) was used. The City's adopted VMT screening criteria are described in Table 1 along with a determination of each screening criteria's applicability to the Project.

TABLE 1: SCREENING FOR LAND USE PROJECTS EXEMPT FROM VMT ANALYSIS

Screening Criteria	Description	Result
Transit Priority Area (TPA)	High quality transit provides a viable option for many to replace automobile trips with transit trips resulting in an overall reduction in VMT.	Does not meet.
Low VMT Area	Projects located in a low VMT generating model traffic analysis zone (TAZs) are presumed to have a less than significant impact on VMT. These TAZs generate total daily VMT/SP that is 15% less than the baseline level for the County.	Does not meet.
Low Trip Generating Uses	Projects below 110 Average Daily Trips (ADT) are presumed to have less than significant impact on VMT.	Does not meet.
Project Type	Local-Serving Retail under 50,000 square feet, Local-Serving Essential Services such as parks and day care centers, affordable or supportive housing, senior housing, redevelopment projects that would generate fewer VMT and non-destination small hotels are presumed to have a less than significant VMT impact.	Meets for retail and truck/trailer parking components.

The retail component of the Project meets the Project Type screening criteria for the Local-Serving Retail as the uses in Planning Area 3a were consistent with the City Guidelines and no single structure was over 50,000 square feet. The truck/trailer component of the Project is anticipated to provide overflow or excess trailer parking for nearby warehouses and distribution centers. It is reasonable to assume that the future tenant will select a location, at least in part, as to how it effects their transportation costs. Businesses who have shipping as a significant part of their operations are sensitive to transportation costs and by extension their relative proximity to customers and suppliers. Therefore, the proposed truck storage lot is anticipated to serve nearby warehouses and distribution facilities that would be seeking to locate overflow truck/trailer storage as close as possible to the primary warehouse or distribution facility. As a result, the trips are expected to be local serving.

The remaining components of the Project did not meet the screening criteria and therefore a VMT analysis was conducted for the business park, warehouse and residential.

VMT ANALYSIS

MODELING AND METHODOLOGY

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 VMP per service population under General Plan Buildout Conditions.

The City of Ontario's average VMT per service population under General Plan Buildout conditions has been calculated using the TOP General Plan Buildout (2050) model. Table 2 provides the City of Ontario's Citywide average VMT per service population for General Plan Buildout (2050) conditions.

TABLE 2: CITYWIDE VMT PER SERVICE POPULATION

Ontario	TOP 2050
Service Population	706,494
VMT	21,689,573
VMT per service population	30.70

As shown in Table 2, the City of Ontario's VMT per service population for General Plan Buildout (2050) conditions has been calculated as **30.70 VMT per service population**.

PROJECT LAND USE CONVERSION

In order to estimate project generated VMT, standard land use information such as dwelling units and building square footage must first be converted into a TOP Model compatible dataset. The TOP Model utilizes socio-economic data (**SED**) (e.g., population, households and employment) instead of land use information to estimate vehicle trips. The Project's land use information has

been converted to SED and input into the Project's traffic analysis zone (TAZ) 53652601 to generate the Project's VMT. Table 3 summarizes the SED inputs used to reflect the Project.

TABLE 3: POPULATION AND EMPLOYMENT ESTIMATES

	Project
Households	466
Population	1,631
Employees	1,333 ¹

VMT CALCULATION

Origin/Destination VMT Method

The Origin/Destination (**OD**) method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area (i.e., TAZ or group of TAZ's). The OD method accounts for all trips (i.e., both passenger car and truck) and trip purposes (i.e., total VMT) and therefore provides a more complete estimate of VMT. Total VMT is divided by the Project's service population to derive the efficiency based metric VMT per service population, which is then compared to the Citywide buildout VMT per service population for purposes of identifying a potential impact.

Table 4 presents Project generated total OD VMT and the resulting total OD VMT per service population for both Baseline (2022) and General Plan Buildout (2050) conditions. As shown in Table 4, the Project would generate total OD VMT per service population below the City's adopted impact threshold for both Baseline (2022) and General Plan Buildout Year (2050) conditions.

TABLE 4: PROJECT GENERATED TOTAL OD VMT PER SERVICE POPULATION

	Baseline (2022)	General Plan Buildout Year (2050)
Population	1,631	1,631
Employment	1,333	1,333
Service Population	2,964	2,964
Total OD VMT	90,055	84,988
OD VMT per service population	30.22	28.68
City Threshold	30.70	30.70
Percent Below Threshold	-1.56%	-6.58%
Potentially Significant?	No	No

Boundary VMT Method

City Guidelines also acknowledge that a VMT analysis should contain an evaluation of a project's cumulative effect on VMT, which can be performed using the boundary method of calculating VMT. The boundary method is the sum of all weekday VMT on the roadway network within a

¹ SCAG Employment Density Study; Table II-B

designated boundary (i.e., City boundary). The boundary method estimates VMT by multiplying vehicle trips on each roadway segment within the boundary by that segment's length. This approach consists of all trips, including those trips that do not begin or end in the designated boundary. Consistent with City Guidelines, the City of Ontario was used as the boundary for this assessment. In addition, as the Project is located near the southeastern edge of the City of Ontario, an additional assessment of a 10-mile boundary area surrounding the Project site has also been conducted to ensure trips associated with the Project are not omitted.

Table 5 presents total VMT calculated using the boundary method for No Project and With Project General Plan Buildout (2050) conditions. Boundary VMT per service population is found to remain unchanged under the No Project scenario as compared to the With Project scenario for City of Ontario boundary and the With Project scenario is found to decrease as compared to the No Project scenario using the 10-mile boundary.

TABLE 5: GENERAL PLAN BUILDOUT (2050) BOUNDARY VMT RESULTS

Scenario	City Boundary		10-Mile Boundary	
	No Project	With Project	No Project	With Project
Service Population	706,494	706,931	1,985,501	1,985,938
Boundary VMT	9,602,250	9,605,588	34,082,666	33,767,387
VMT per SP	13.59	13.59	17.17	17.00
Change in VMT	0.00		-0.16	
Potentially Significant?	No		No	

SUMMARY

Based on the results of this analysis the following findings are made:

- The Project was evaluated against screening criteria as outlined in the City Guidelines. The Project's retail and truck/trailer lot was found to meet the Project Type screening criteria.
- However, the remaining components of the Project was not found to meet any available screening criteria, and a VMT analysis was performed.
- The Project's VMT analysis found the Project to be below the City's VMT per service population threshold by 1.56% for baseline (2022) conditions and 6.58% for buildout (2050) conditions.
- In addition, the Project's cumulative effect on VMT was found to not increase the City's VMT per service population with the inclusion of the Project using the City's boundary and 10-mile boundary.
- The Project is found to have a less than significant impact.

If you have any questions, please contact me directly at aso@urbanxroads.com.

REFERENCES

1. **City of Ontario.** *SB 743 VMT Thresholds.* City of Ontario : s.n., June 2020.
2. **ICF with contributions from Fehr & Peers, Sacramento Metropolitan Air Quality Management District, and STI.** *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity.* August 2021.

**ATTACHMENT A
PRELIMINARY SITE PLAN**

