# References

Reference A:Style and Format PrinciplesReference B:Architectural StylesReference C:Downtown Ontario Design GuidelinesReference D:Residential Design GuidelinesReference E:Commercial Design GuidelinesReference F:Industrial Design GuidelinesReference G:Landscape Design and Construction GuidelinesReference H:Community Climate Action PlanReference I:Chino Airport Land Use Compatibility Plan

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### **Reference A: Style and Format Principles**

Sections:

Terms and Phrases
Numbers
Capitalization
Hyphenation
Commas Separating Items in a Series
Colons
Semicolons
Outline Format
References and Citations

#### A.01.001: Terms and Phrases

A. Conventions to Be Used for Common Terms and Phrases. To ensure consistency of terminology within the Development Code, listed below, are conventions to be used for certain common terms and phrases, some of which will appear abbreviated throughout the Development Code. In all cases, these terms and phrases will be defined in the Development Code glossary, or will be explained within individual Development Code sections or by appropriate interpretation.

**City.** Use "City" rather than "City of Ontario," after City of Ontario is first used in the Development Code.

**Deny.** Use "deny" rather than "disapprove" or "disallow."

**Policy Plan (General Plan) component of The Ontario Plan.** Use "Policy Plan (General Plan) component of The Ontario Plan "rather than "General Plan," or "City of Ontario General Plan."

**Pursuant To.** Use "pursuant to" rather than "in compliance with," "in accordance with," "under," etc.

Lot. Use "lot" rather than "parcel."

**Approving Authority.** Use "Approving Authority" when referring to the City Council, Planning Commission, Planning Director, Zoning Administrator, etc., as the hearing body or position responsible for approving an application or rendering a decision.

**Reviewing Authorities**. Use "Reviewing Authorities" when referring generically to all Advisory Authorities, Approving Authority and Appeal Authorities.

**Structure (Structures).** Use "structure" or "structures" rather than "building," "buildings," or "buildings and structures."

**State**. Use "State" rather than "State of California," after State of California is first used in the Development Code.

Zoning District. Use "zoning district" rather than "zone," or "zone district."

Use	Don't Use
2, 10, 20, 30, etc.	two, ten, twenty, thirty, etc.
one	1
12 months	one year
30 days	one month
allowed	permitted
Approving Authority	final review authority or decision making body
believes	feels
concurrently	simultaneously
contained, identified, outlined	(as) set forth, set out in
e.g., (for partial "for instance" lists)	"for example"
ensure	insure, assure
equivalent	same as though
i.e., (for complete lists)	"that is"
pursuant to	in accordance with, per, in compliance with
multiple-family	multi-family
lot	parcel
percent	% (except when used in charts or tables)
presumed	assumed
religious assembly	church
shall	must
their	his/her
Policy Plan	General Plan
	herein
	said
	such
	thereof
	That (at the beginning of a finding)
	"any," "all," "no" to start a sentence

### B. Words to Use and Not Use. Additional words to use and not use are as follows:

### A.01.002: Numbers

**A. Expression of Numbers.** Numbers will be expressed in numeric form 2 through 10 or more. The archaic ordinance convention of repeating numbers in both word and numeric form (i.e., "fifty (50)") will not be used.

**B.** Expression of Percentages. Percentages will be expressed using the % character only in tables and graphics, the word "percent" will be used in text.

### A.01.003: Capitalization

Always Capitalize:	Don't Capitalize:
AR, RE, LDR, MDR, HDR, CS, CC, CR, OL, OH, MU, BP, IP, IL, IG, IH, ONT, CIV, OS-R, OS-C, OS-U, RC, AG, ES, etc.	development agreement
Building Permit	specific plan, except when referring to a specific plan name
Chapter	zoning district
City	
City Council	
City Engineer	
Department (all City Departments)	
Development Code	
Division	
Federal	
Land Use Element	
Part	
Permit types (e.g., Use Permit, Variance, etc.)	
Planning Commission	
Planning Director	
Section	
State	
Subparagraph	
Subsection	
Title	

Typical words to capitalize and not capitalize are as follows:

### A.01.004: Hyphenation

**A. Hyphenation of Compound Nouns**. Use a hyphen with compound nouns, such as "fatherin-law" or "right-of-way." Additionally, a hyphen is used to join two or more words that serve as a single adjective that describes a noun.

Examples:

- A fifty-year-old man has won the marathon.
- The detective noticed the run-down heels of the suspect.

**B.** Words to Hyphenate and Not Hyphenate. Typical words to hyphenate and not hyphenate are as follows:

Hyphenate:	Don't Hyphenate:
one-story, 2-story, 3-story, etc.	
one-foot, 2-foot, 3-foot, etc.	
single-family	"anti" words are one word (i.e., antiestablishment)
multiple-family	"mid" words are one word (i.e., midway), except mid- sixties, mid-century, or when used with any proper capitalized noun, such as mid-January
right-of-way (plural is rights-of-way)	"citywide" (as an adjective)
off-site (adjective or adverb)	"multi" words are one word (i.e., multifaceted), except when a hyphen would prevent one word from being mistaken for another (i.e., multi-ply fabric).
on-site (adjective or adverb)	"non" words are one word (e.g., nonconforming, nonuse, nonurban, nonresidential, etc.), except when combined with any capitalized proper noun (e.g., non-English, non- Indian, non-Italian, etc.
on-ramp	"pre" words are one word (i.e., preexisting), excepting "pre- engineered"
off-ramp	"re" words are usually one word (i.e., reengineered), excepting words that would have duplicate meanings (e.g., resign, re-sign)
self- (when used as a prefix)	"retro" words are one word (i.e., retroactive, retrofit)
-type	

### A.01.005: Commas Separating Items in a Series

Use commas to separate three or more items in a series. The items may be single words, phrases, or clauses. A comma before the last item is optional if there are exactly three items in the series.

### A.01.006: Colons

A colon is usually used in one of 2 ways: **[i]** It may be used to introduce the reader to whatever follows it, signaling: "Here is something you should pay attention to;" or **[ii]** the colon may follow an independent clause (a complete statement) to introduce a defining example, a list, or a quotation.

### Examples:

- She had only one person to blame: herself.
- A new menace threatens eastern Canada: pollution.

• To be physically healthy, we need three things: ample rest, a good diet, and plenty of exercise.

• The title of one of his poems signifies Dylan Thomas's feelings about his father's death: "Do Not Go Gentle into That Good Night."

### A.01.007: Semicolons

A. A semicolon joins two independently expressed ideas; it also implies a relationship between them.

**B.** Semicolons can be used between closely related independent clauses, and may be used instead of commas, to separate items in lengthy, complex lists.

#### Examples:

• I am hoping to see The Titanic before it leaves town; I am told that the 3 hours it takes to watch this movie passes very quickly.

• We visited Erie, Pennsylvania; Buffalo, New York; and Toronto, Ontario.

**C.** Transition words are sometimes used between independent clauses; to show cause and effect, or the continuation of ideas. Words and phrases used in this way are preceded by semicolons, and followed by commas.

#### Examples:

• We greatly appreciate your excellent on-the-job performance; therefore, we are giving you a raise.

• Computers have replaced the postal system as the "medium of choice" for correspondence; for example, e-mail is far more frequently used than letters of request for obtaining information.

• Listed below are words and phrases that require semicolons and commas when used in these types of constructions:

- Besides
- Consequently
- Furthermore
- For example
- However
- In fact
- Moreover
- Nevertheless
- Therefore
- Thus

#### A.01.008: Outline Format

The provisions of the Development Code will be organized according to the following outline (<u>Note</u>: "X" and "x" are used as a placeholder for the actual Arabic numeral that will be used):

## Chapter X: (12 pt) [Name of Chapter] (16 pt)

Division X.XX—[Name of Division] (12 pt)

### X.XX.xxx: [Name of Section] (10 pt)

- A. [Subsection Title]. [standard text] (10 pt)
  - 1. [Paragraph Title]. [standard text] (10 pt)
    - a. [Subparagraph Title]. [standard text] (10 pt)
      - (1) [Subparagraph Title]. [standard text] (10 pt)
        - (a) [Subparagraph Title]. [standard text] (10 pt)
          - (i) [Subparagraph Title]. [standard text] (10 pt)

### A.01.009: References and Citations

A. **Referencing Text Outside of the Same Section.** When a cross-reference is to text outside of the same section being referenced, the cross-reference starts with the Chapter number and continues to the appropriate level for the reference. For example, 2.01.050.B. refers to Subsection B. of Section 050, of Division 01, of Chapter 2. The terms Chapter, Division or Section are used if the reference is to an entire Chapter, Division or Section. Cross-references will include the applicable Chapter, Division or Section number, followed by the name of the Chapter, Division or Section in parenthesis (e.g., "Division 2.01 (Planning Agency)").

**B. Referencing Text within the Same Section.** When a cross-reference is to text within the same section, the name of the Section level is used (i.e., Subsection, Paragraph, Subparagraph, etc.) and the reference "number" starts with the appropriate subsection letter. For example, the statement: "see Paragraph D.2," refers to Paragraph 2, of Subsection D, of the same Section.

### C. Citation of External Documents.

1. Provisions of State law that are cited in the Development Code will be referenced by the abbreviated name (as defined in the Development Code Glossary) of the applicable State code, and either individual or multiple section numbers (e.g., "GC Section 65091," when referring to "Government Code Section 65091," etc.).

2. City documents, other than The Ontario Plan, that are not part of the Ontario Municipal Code (e.g., specific plans, etc.) will be referenced in the Development Code by showing the document title in italics.

3. Provisions of the Ontario Municipal Code that are cited in the Development Code will be referenced by the abbreviation OMC, followed by the applicable Title, Chapter, Article or Section number, and the name of the Title, Chapter, Article or Section in parenthesis (e.g., "OMC Title 5 (Public Welfare, Morals and Conduct), Chapter 29 (Noise)," "OMC Section 5.29.04 (Exterior Noise Standards)," etc.).

### **Reference B: Architectural Styles**

Architectural styles classify architecture in terms of the use of form, techniques, materials, period, region, and other stylistic influences. This reference has been established to ensure consistency of terminology, and appropriate examples of architectural styles, as they are used or reference within the Development Code.

Follows, is a discussion of the below-listed architectural styles and those architectural features that are common to each recognized style:

#### Romantic Period (1820-1880)

- Gothic Revival (1850s 1880s)
- <u>Italianate (1860s 1880s)</u>
- Late Carpenter's Gothic Revival (1860s 1900s)

#### Victorian Period (1860s-1900s)

- Eastlake (1870s 1880s)
- <u>Richardsonian Romanesque (1870s 1890s)</u>
- <u>Second Empire (1870s)</u>
- <u>Stick (1880s)</u>
- <u>Victorian Eclectic (1880s 1900s)</u>
- Queen Anne (1885s 1900s)
- <u>Shingle (1890s 1920s)</u>
- <u>American Foursquare (1900s)</u>

#### Commercial Styles

- Commercial (1883 1900)
- Beaux Arts (1890s 1930s)

# Anglo-American, English and French Revival Period (1895-1940s)

- Colonial Revival (1890 1915)
- Dutch Colonial Revival (1890 1915)
- Late Gothic Revival (1895 1940s)
- <u>Bungalow (1900 1940s)</u>
- French Eclectic Revival (1900 1930s)
- Tudor Revival (1900s 1930s)
- Neoclassical Revival (1900s 1920s)

### Modern Period (1895-1940s)

- Craftsman (1895 1920s)
- <u>Prairie (1900s 1920s)</u>
- Art Deco (1920 1940s)
- <u>Art/Streamline Moderne (1920s 1940s)</u>

#### Mediterranean Revival Period (1900s-1940s)

- <u>Mission Revival (1890 1915)</u>
- Mediterranean Revival (1900s 1930s)
- <u>Pueblo Revival (1900s 1930s)</u>
- <u>Spanish Colonial Revival (1915 1930s)</u>
- Monterey Revival (1920s 1940s)

#### Mid-Century Modern (1920s-1960s)

- Usonian (1920s 1960s)
- Minimal Traditional (1930s 1950s)
  - California Ranch (1930s 1960s)
- Early Post-War Tract (1940s 1960s)
- <u>Modern (1930s 1960s)</u>

#### Commercial Styles

- International (1930s)
- <u>Corporate International (1940s)</u>
- Googie/50s (1950s)

#### Post Modern Period (1960s-1980s)

- Brutalism (1960s)
- New Formalism (1960s)
- Post Modern (1970s)
- Deconstructivism (1970s)

### GOTHIC REVIVAL (1850s - 1880s)



The Gothic Revival movement began 30 years before the founding of Ontario; however, it continued into the late 1940s and early 1950s. The Gothic Revival style is the earliest of the three Gothic Revival styles. The other two are the Late Carpenter's Gothic Revival (1860s through 1900s) and the Late Gothic Revival (1895-1940s). This style often combined classic Greek Revival buildings with Gothic Revival elements.

This style, while not built in Ontario, is compatible with the development of Ontario's downtown area. The Gothic Revival style was most often used on churches.

### Common Features

- High-pitched roofs
- Projecting pinnacles
- Decorative bargeboards on gable <u>cornices</u>
- Frequent occurrence of wall gables
- Split pilasters in porches
- Multi-colored bands, used especially with brick
- Open Tudor arches, used most in porches
- Windows were typically pointed, lancet windows with wood frames
- Doorways were typically pointed with lancet arches to match lancet windows
- Doors were typically wood, either plain or ornate, with a stained finish

### Colors

Buildings were painted a light color. Exposed brick (not painted) was also typically used. Accent colors for window and doorframes were typically darker, richer colors.



St. Joseph's Church Denver, Colorado

### ITALIANATE (1860s - 1880s)



Like many Victorian-era styles, Italianate emphasized vertical proportions and richly decorative detailing. It was found on residential, commercial, and industrial structures in America from about 1870, until the turn of the century.

Some of Ontario's commercial buildings were originally designed with Italianate elements. While not typically built in Ontario, the Italianate style is easily compatible with Ontario's historic neighborhoods.

### **Common Features**

- Low-pitched or flat roof
- Wide, overhanging eaves
- Paired bracketed cornices
- A variety of fenestrations (usually very tall, narrow, double-hung, one-over-one windows)
- Molded window surrounds
- Doors are typically carved wood or other ornate wood doors, with a stained finish
- Square cupola
- Wood frame
- Arcade porch topped with a balustrade balconies
- Rectangular massing of house
- Elaborately decoration
- Balanced, symmetrical façade
- Emphasis on vertical proportions: 2 to 4 stories
- Side bay window
- Heavily molded double doors
- Roman or segmented arches above windows and doors
- Simple Italianate structures have a hip roof, bracketed eaves, and molded window surrounds. A more elaborate or high style example may feature arcaded porches, corner quoins, towers, and ornate detailing. There are also some Italianate structures that are flat-roofed, with a front bay and entrance, and a decorated cornice.

#### Colors

Buildings were typically painted a light color, with a second trim color. A third color was occasionally used on window frames.



Typical Italianate Architectural Features



### LATE CARPENTER'S GOTHIC REVIVAL (1860s - 1900s)



The Late Carpenter's Gothic Revival style is the second of the Gothic Revival styles. This version of the Gothic Revival movement combined Victorian styles, such as Eastlake and Queen Anne, with Gothic Revival Elements. Most churches built in the late 1800s were of this style.

Several early buildings in Ontario history were of the Late Carpenter's Gothic Revival style; unfortunately, no examples of this style remain in the City. The best example was the original First Methodist Church, shown left.

The Late Carpenter's Gothic Revival style is compatible with the development of Ontario's downtown area.

### Common Features

- High-pitched roofs
- Rectangular gable roof with tower
- Pointed spire tower roof
- Main entranceway either a lancet or segmented arch.
- Belfry openings lancet arch
- Windows were typically pointed, lancet windows, with wood frames
- Doors were typically wood, either plain or ornate, with a stained finish
- Doorways were pointed, with lancet arches matching the window design



Typical Late Carpenters Gothic Revival Architectural Features

### Colors

Buildings were painted in a light color. Accent colors for window and doorframes were typically darker, richer colors.

### EASTLAKE (1870s - 1880s)



The Eastlake style is a decorative style that incorporates elements from the other Victorian styles (Queen Anne, Stick, Second Empire, etc.). There are only a few examples of any of the Victorian styles within the City, and there are no known examples of the Eastlake style within the City.

### Common Features

- Large decorative porches
- High pitched gable roofs (or variations of the gable roof, i.e. cross gable, etc.)
- Wood siding or shingles for exterior walls
- Turned posts
- Carved gable end decoration
- Cut out patterns on porch frieze
- Other typical features found in the Queen Anne, Second Empire and Stick styles
- Windows were typically individual double or single-hung wood frame windows. Stained glass windows were also used to accent an interior or exterior feature
- Doors were typically ornate, and could include stained or beveled glass panels
- Glass sidelights with either stained or beveled glass to match front door were also used on larger homes, as were double doors for the front entrance



Example of the Eastlake Style

### Colors

Homes were typically painted in color schemes consisting of 5 to 7 colors. Palettes were very eclectic, ranging from bright colors to muted tones. Every detail was painted in different colors to accentuate them.

### **RICHARDSONIAN ROMANESQUE (1870s - 1890s)**



Henry Hobson Richardson made this style famous, and it bears his name. It became known with buildings with great prestige. The style is derived from the architecture of France and Spain from the Middle Ages (typically the 11<sup>th</sup> and 12<sup>th</sup> centuries). Most building in this style include public buildings, such as churches and government offices, and large homes. A good example of the style is depicted in St. Brigid's Church, located in San Francisco, California, shown left.

There are no known buildings within the City that are of this style; however, the style is compatible with many of the buildings located in Ontario's original downtown.

### **Common Features**

- Use of weight and mass as prime elements
- Medieval type of building form
- Masonry walls
- Arch and dentil details on walls
- Extensive use of arches, typically an early Christian arch, as used in the Middle East
- Arch used a single arch or arcade
- Deep recessed windows
- Squat columns
- Pressed metal bays and turrets
- Windows were typically rectangular and divided into rectangular patterns by mullions and transoms
- Doorways were rectangular, typically with stained wood doors, which were either plain or ornate



Typical Richardsonian Romanesque Architectural Features

### Colors

Buildings were typically natural stone. Accent colors for window and doorframes were typically darker, richer colors.

### SECOND EMPIRE (1870s)



The Second Empire style takes its name from the French Second Empire, during the Reign of Napoleon III, taking design queues from the grand buildings being constructed in Paris at the time. The style became the most popular in America during the period, with many private homes and public buildings created in the style.

The Second Empire style began to die out before the Chaffey brothers founded Ontario. The style is, therefore, very rare in the City. One of the few and best example of the style within the City is the William Fallis House, Ontario's first Historic Landmark.

### Common Features

- Mansard roof
- "Widow watch" towers
- Slate or wood shingle roofs with cast iron cresting
- Dormers in mansard roofs, with
- Wood siding or smooth plaster finish stucco for exterior walls
- Symmetrical design
- Centered front porches
- Tall brick foundations and bases
- Turned porch columns
- Horizontal banding separating floors
- Windows were typically tall, individual double or single-hung wood frame arranged in groups of 2 or 3
- Doors were typically ornate, with stained or beveled glass panels. Glass sidelights, with either stained or beveled glass to match the door were also used on larger homes, as was the use of double front doors

### Colors

Homes were typically painted in color schemes consisting of 4 to 7 colors, depending upon the detail of the house. Palettes were very eclectic, ranging from bright colors to muted tones. Details were typically painted in different colors to accentuate them.



Typical Second Empire Architectural Features

### STICK (1880s)



The Stick style of architecture was popular from the 1860s through the 1890s. It was one of several styles of architecture employed during the Victorian era. Architectural critics of the day were stressing honesty in architectural design, believing that a building should visibly reflect its materials and method of construction. This was a reaction against the excesses of the ornate Victorian styles. The linear geometric Stick style is a result of this reform movement. Of course, the actual structure of a Stick style is not visible; the stick pattern is purely decorative. However, this pattern was reminiscent of medieval English heavy timber building traditions, in which the actual structural skeleton of the building was visible from the building exterior.

Some early homes in Ontario were built in the Stick style, some of which were mixed with the Queen Anne style. The most prominent Stick style home in Ontario is the Oakley House, shown top.

### Common Features

- Overhanging eves, usually with exposed rafter ends
- Wood construction with boxy projections: bays, wings, and towers
- A grid-work of raised boards called "stick work" overlaying the clapboarded wall surface
- Irregular, asymmetrical forms and rooflines
- Vertical, horizontal, or diagonal boards applied over clapboard siding
- Angularity, asymmetry, verticality
- Roof composed of steep intersecting gables
- Large veranda or porch
- Simple corner posts, roof rafters, brackets, porch posts, and railings
- Individual casement windows, or double or single-hung wood frame windows
- Stained glass windows to accent interior or exterior features
- Ornate doors, which could include stained or beveled glass panels
- Glass sidelights, with either stained or beveled glass to match front door, were used on larger homes, as were double doors for the front entrance

#### Colors

Homes were typically painted in color schemes consisting of 5 to 7 colors. Palettes were very eclectic, ranging from bright colors to muted tones. Every detail was typically painted a different color to accentuate them.



Example of the Stick Style

### VICTORIAN ECLECTIC (1880s – 1900s)



Victorian Eclectic structures are highly decorative and exhibit stylistic influences so numerous that they do not fit into any of the previous single styles of architecture. Dating from the 1870s through 1900, these buildings feature an unusual combination of elements from a variety of Victorian styles. Details from the Queen Anne, Gothic, and Italianate styles were borrowed most often, and were combined to create highly decorative building features, as shown to left and below. Victorian Eclectic structures tend to be broader and taller than earlier architectural styles, and much more complex. This style, while needed to address local vernacular architecture, is not an approved architectural style by the California

Office of Historic Preservation and cannot be used in Historical Resource Surveys.

Some early examples of the Victorian Eclectic style exist in Ontario. This style was also adapted into a variation of a bungalow, and was often called a Folk Victorian, due to its more whimsical architectural details.

#### **Common Features**

- Square, symmetrical shape
- Brackets under the eaves
- Pediments
- Gothic pointed arches
- Sunburst detailing
- . Roof cresting
- Semi-circular arched windows
- Oriel window
- Dormers
- Porches with spindle work or flat, jigsaw cut trim
- Carpenter gothic details
- Low-pitched, pyramid shaped roof
- Front gable and side wings
- Windows were typically individual casement or single-hung, with wood frames. Occasionally, metal frames were used to replicate the ironwork used on other details in the house
- Doors were typically carved wood or other ornate wood, with a stained finish

#### Colors

Homes were typically painted white with a second trim color. Sometime a third color was used on window frames.



**Example of the Victorian Eclectic Style** 

### QUEEN ANNE (1885s – 1900s)



The most popular of the Victorian styles, the Queen Anne style was the culmination of all the various Victorian styles and was influenced by them. The Queen Anne style also made a partial comeback, when elements of the style were used in the creation of the Victorian variation of the Bungalow.

The public recognizes the Queen Anne style as "Victorian," and this style continues to have elements replicated on tract homes and farmhouses across the country. Several Ontario Historic Landmarks are of the Queen Anne style. One of the most prominent is the John Stewart House, shown above.

### **Common Features**

- Round, square or octagonal towers
- Steep pitched gable roofs, or variations of the gable roof, such as a cross gable roof form
- Wood siding and/or shingles for exterior walls
- Large front porches
- Rock or brick foundations and bases
- Turned porch columns
- Decorative shingle patterns, typically on gable ends
- Spindle work friezes on porch
- Brick chimneys
- Decorative brackets
- Individual casement, or double or singlehung wood frame windows
- Stained glass windows used to accent interior or exterior features
- Ornate doors were with a stained finish, and may include stained or beveled glass panels
- Front door of larger homes had glass sidelights with either stained or beveled glass.

### Colors

Homes were typically painted in color schemes consisting of 5 to 7 colors. Palettes were very eclectic, ranging from bright colors to muted tones. Every detail was painted in a different color to accentuate them.



#### Typical Queen Anne Architectural Features

### SHINGLE (1890s - 1920)



The Shingle style was known for its extensive use of wood shingles, hence the name. While other Victorian styles of the era were very ornate, the Shingle style was not. It was simple in form and detailing, and emphasized the uniformity of its surface materials. The Shingle style was one of the most popular styles on the nation's eastern coast, and was not widely used in California. The most prominent use of the Shingle style was on the New England coast.

There are no known buildings of this style in Ontario; however, this style may be compatible with some of Ontario's oldest neighborhoods.

### **Common Features**

- Round towers
- Steep pitched gable roofs (or variations of the gable roof, i.e. cross gable, etc.)
- Wood shingles for exterior walls
- Large front porches
- Stone (sometimes brick) foundations and bases
- Extensive use of Dormers
- Use of Palladian windows
- Windows were typically individual casement, double or single-hung wood frame, with a multiple-pane upper sash and a single-pane lower sash. Stained or beveled glass windows were also used
- Doors were typically plain with a stained finish, but could include stained or beveled glass panels. Glass sidelights, with either stained or beveled glass were also used

### Colors

Homes were not typically painted. The shingles were either left exposed in order to allow them to weather, or they were stained in a semi-transparent color. Dark, rich accent colors were typically used on window and doorframes.



**Typical Shingle Architectural Features** 

### AMERICAN FOURSQUARE (1900s)



The Foursquare is easily recognized by its square plan and overall simplicity. The majority of these houses were built during the first three decades of the 20th century.

The typical Foursquare is a two-story hipped roof structure, with a central dormer, minimal decoration, broad overhanging eaves with brackets or modillions, classical frieze with dentils, and a porch with hipped roof supported by simple Doric columns or square posts. Occasionally, a Foursquare will feature a shaped gable, or will be considerably larger, with ornamentation that is more elaborate. In each case, however, the basic square plan is predominant. Later Foursquare houses often had the same type of interiors as Bungalows, with open floor plans, lots of built-ins, and fireplaces. Popularized by pattern books and

Sears Roebuck & Company mail order kits, the American Foursquare spread to residential neighborhoods throughout the United States.

The majority of American Foursquare houses in Ontario are located on the west side of the City's original downtown. There are several such homes located along Euclid Avenue, including the Pollock House, pictured above. Additional examples of the American Foursquare home are pictured below

### Common Features

- Box Shape
- Two-and-a-half stories high
- Four-room floor plan
- Brick, stone, or wood siding
- Simple low-hipped roof, with deep overhangs
- Large central dormer
- Side bays
- Doric or square columns
- Decorative brackets
- Dentils
- Classical frieze
- Modillions
- Windows were typically individual casement, or single-hung, with wood frames
- Simple wood doors were used, with a stained finish



Example of the American Foursquare Style

### Colors

Homes were typically painted in three earth-toned colors. On some occasions, when the siding material changed between the first and second story (i.e. shingles and clapboard siding), two shades of the same color would be used to distinguish the change in material. Typically, the darker shade would be painted on the upper story.

### COMMERCIAL (1883 - 1900)



The Commercial style was created to address the vernacular brick commercial buildings built in Ontario from 1885 until the early 1900s, as shown to the left. The buildings were made of brick and were influenced by a variety of styles, including Queen Anne and shingle styles. This style, while needed to address local vernacular architecture, is not an approved architectural style by the California Office of Historic Preservation and cannot be used in Historical Resource Surveys.

Many of these buildings were altered in the 1950s to give them a more modern appearance, but most of the features are hidden under the alterations.

### **Common Features**

- Brick walls
- Flat roof with decorative cornice
- Towers and other vertical projections at corners
- Recessed and projecting elements
- decorative pilasters
- Windows were typically individual casement or single-hung wood frame
- Storefronts typically consist of large plate glass windows with a short bulkhead located at ground level. Above the storefront were small transom windows (operable or non-operable)
- Doors were typically glass with painted frames

### Colors

The base color of commercial buildings was typically exposed brick. Dark, rich accent colors were typically used for window and doorframes.





**Examples of the Commercial Style** 

### BEAUX-ARTS (1890s – 1930s)



The Beaux-Arts style, also known as the Classical Revival style, was used predominantly in public buildings, such as libraries and banks. The style was based on the Greek and Roman architectural orders, was very grandiose in nature, and had monumental proportions. Many banks, libraries, churches, and similar buildings chose the style, as the style implied importance. It was also the style typically chosen for homes for the very wealthy.

There were few classical revival buildings ever

constructed within Ontario, and even fewer known examples are left standing within the City, such as the Bank of America building, above.

### Common Features

- Smooth stone base
- Flat roofs
- decorative cornices
- projecting pediments
- capped parapet walls
- Smooth wall surfaces, usually stucco (smooth cement-plaster finish)
- Windows were typically individual casement or single-hung wood frame
- Storefronts typically consisted of large plate glass windows with a short bulkhead located at ground level. Above the storefront were small transom windows (operable or non-operable)
- Doors were glass, with painted frames. Occasionally, decorative solid doors were used.



Example of the Beaux Arts Style

#### Colors

The base color of the building was typically white, with an exposed smooth stone base. Trim and accent colors were typically light muted earth tones, with very little variation in color.



Typical Beaux Arts Architectural Features

### COLONIAL REVIVAL (1890 – 1915)



The Colonial Revival style was simple and symmetrical, and had a variety of different roof forms. Of the many period revival styles that became popular during the 1920s, the Colonial Revival style relied upon architectural elements from America's past. This style was heavily influenced by the Cape Cod, Georgian, and Federal styles. This style was also adapted as a variation of the Bungalow style.

There are very few Colonial Revival homes in the City, but there are many examples of the Colonial Bungalow style, as pictured top left and below right.

### **Common Features**

- Wood clapboard siding (occasionally brick was used, not typical in Ontario)
- Gable or hipped roof
- . Small centered porch
- Projecting pediment
- Simple porch columns
- Symmetrical facade .
- Windows were typically individual single or double-hung wood frame
- Doors were typically decorative solid wood with glass sidelights

### Colors

The base color of the building was typically lighter shades of blues, yellows and greens. Typical colors were blue grey and sea foam green. Trim and accent colors were typically white.



#### **Bungalow Variation**

The Colonial Bungalow had the elements of the Colonial Revival style with one modification, Colonial Bungalows typically used a hipped gable roof, rather than just the straight gable or hipped roof.



**Typical Colonial Revival Architectural Features** 

### DUTCH COLONIAL REVIVAL (1890 - 1915)



The Dutch Colonial Revival style is a version of the Colonial Revival style. It has all the typical features of the Colonial Revival style, with one major exception, the incorporation of a gambrel roof. There are a small number of Dutch Colonial Revival style homes in the City, exemplified left and below, as the style was not as popular as the Colonial style, or other revival styles.

#### Roof

The typical roof style for a Dutch Colonial Revival is a gambrel roof with dormers on the second story.

#### **Other Features**

See Colonial Revival style for other features typically found in Dutch Colonial Revival homes.



Example of the Dutch Colonial Revival Style



Typical Dutch Colonial Revival Architectural Features

### LATE GOTHIC REVIVAL (1895 - 1940s)



The most common of the three Gothic Revival styles in California is the Late Gothic style. It is also the most accurate in terms of architectural details and form. Whereas the earlier forms of Gothic Revival architecture combined other styles, such as Greek Revival, or one of the Victorian styles with Gothic Revival elements, the Late Gothic Revival style is more true to the English and French Gothic styles. The Late Gothic style was used primarily in churches and schools.

Several Churches in Ontario were designed in the Late Gothic Revival style, and each of

them used unique materials. St. George Church is probably the best example of the style, with its brick exterior. Other good examples are the Bethel Congregational Church, shown above left, which used stone as the exterior material, and the First United Methodist Church, shown below, which used a stucco exterior.

### Common Features

- Simple smooth surfaces
- Steep pitched gable roofs or variations of the gable roof, such as the cross gable
- Elaborate stained or leaded glass
- Designed to be low to the ground
- Large towers
- Main entranceway either a lancet or segmented arch.
- Belfry openings lancet arch
- Windows were typically pointed, lancet windows, with wood frames. Stained or leaded glass was also used
- Doors were typically plain or ornate wood, with a stained finish
- Doorframes were pointed with lancet arches to match the window design

### Colors

Buildings were painted a light color; however, brick and stone buildings exteriors were not painted. Dark, rich accent colors were typically used on window and door frames.



First United Methodist Church Ontario, California

### BUNGALOW (1900s - 1940s)



Although the bungalow is more of a type of home than a style, it is included in this list to address the smaller homes built from the late 1900s through the 1940s. The bungalow type of home was adapted to many architectural styles, but clear differences still remained. For example, a Craftsman home, such as the Gamble House in Pasadena, is far different from the many Craftsman Bungalows built in Southern California. The bungalow started in California in the early 1910s, primarily as an outgrowth of the Craftsman style.

Bungalows are informal, simple houses, designed to

address the need for more affordable housing. Bungalow floor plans are informal, with open spaces. Although there are many larger, two story bungalows, most bungalows were typically one story.

The bungalow became the first style of home to be built on a mass scale by contractor-builders. Tracts of these semi-custom homes were built on a speculative basis by developers, thus setting the foundation for tract home development that occurred after World War II. As a result, the Bungalow is the most common historic home type in Ontario, such as the Craftsman Bungalow pictured above.

As time passed, variations of the Bungalow developed, based upon many different architectural styles, such as Colonial Revival, Victorian, and Mediterranean Revival. In California, a unique variation of the Bungalow was created. Called the California Bungalow, this style was a cross between the Craftsman and Mediterranean Revival styles.

Regardless of the underlying style, Bungalows have many common features and design elements. Many, but not all, of the Bungalow variations are included in the List of Architectural Styles approved by the California Office of Historic Preservation.

### Common Features

- Open floor plan
- Large front porches with stoop
- Low pitched roofs
- Windows were typically either single or double-hung, or casement styles, with wood frames (sliding styles were not used)
- Designed with many windows grouped in sets of 2 or 3, to let in natural light
- Front windows were typically large in size
- Front doors were typically large and decorative, matching the style of architecture



Typical Bungalow Architectural Features

#### Colors

Exterior colors used were consistent with the basic architectural style of the Bungalow.

### **Bungalow Variations**

Follows, are some of the most common variations of bungalows:

<u>Craftsman Bungalow (1905 - 1940)</u>. Based upon the Craftsman style home and, most notably, the work of Greene and Greene Architects. This is the most common Bungalow style constructed in the City, and was dominant from the early 1910s through the mid-1920s. See Craftsman style for common features and details.





<u>Colonial Revival Bungalow (1905 - 1940)</u>. Based upon the Colonial Revival style of architecture, these homes were built starting in the late 1910s, and became more prevalent as the revival styles became popular in the 1920's. See Colonial Revival style for common features and details.

<u>Victorian Bungalow (1900 - 1920)</u>. Based upon the Queen Anne style predominant in the late 1800s, these homes were built in the early 1910s and were not as popular as the other Bungalow styles.





<u>California Bungalow (1920 - 1940)</u>. As a mix of the Craftsman and Mediterranean Bungalows, these homes were built in the early to mid-1920s as the popularity of the Craftsman style was dying and the Period Revival styles was rising.

<u>Mediterranean Bungalow (1920 - 1940)</u>. Based upon the Mediterranean Revival style, these homes were built in the mid-1920s through the 1930s, and are the second most common Bungalow style constructed in the City.



<u>Vernacular Bungalow (1900 - 1940)</u>. This variation of Bungalow is absent of architectural details that would categorize it in any particular style.

### FRENCH ECLECTIC REVIVAL (1900 – 1930s)



One of the many period revival styles that began in the 1920s and became popular in the late 1920s through the early 1930s, the French Eclectic style replicated the cottages that dotted the French countryside, and were popular in fairy tales. French Eclectic Revival also includes a more formal sub-group that relates more toward the larger, formal homes in found in France.

There are many examples of French Eclectic homes, in Ontario, primarily within the Rosewood Court Historic District, as pictured left and bottom-right. There are, however, no examples of the more formal sub-group existing within the City.

### Common Features

- Curved roof ridge to simulate thatched roof
- Wood Shake roof with wavy pattern
- Steep pitched gable roofs or variations of the gable roof, such as cross gables
- Stucco for exterior walls
- Small or no porches.
- Multi-paned windows
- Large central chimneys
- Round silo type towers
- Individual casement windows, or double or single-hung multipaned windows, with either wood or metal frames
- Stained glass windows to accent interior and exterior features
- Simple doors with a stained finish and stained or beveled glass panels

### Colors

Homes were typically painted in color schemes consisting of 3 colors. Base colors were typically light earth tones. Trim colors were typically in contrast to the base color. Window frames were typically painted dark colors.



#### Typical French Eclectic Revival Architectural Features



Example of the French Eclectic Revival Style

### TUDOR REVIVAL (1900s – 1930s)



The Tudor style replicated the cottages and homes of the English countryside and became one of the many period revival styles that began in the 1920s, and was popular from the late 1920s through the early 1930s.

There are many examples of Tudor homes in Ontario, primarily in the Rosewood Court Historic District. An example of the style is pictured left and below.

### Common Features

- Slate or Wood Shake roof
- Steep pitched gable or hipped roofs
- Brick for exterior walls, sometimes mixed with stucco (on upper stories)
- Half-timbered details on upper stories or gable ends
- Multi-paned windows
- Large central chimneys
- Cantilevered second floor pop-outs
- Individual casement windows, or double or single-hung multi-paned windows, with either wood or metal frames
- Stained glass windows to accent interior and exterior features
- Simple doors with a stained finish and stained or beveled glass panels

### Colors

Homes were typically painted in color schemes consisting of 3 colors. Base colors were typically light earth tones. Trim colors were typically in contrast to the base color. Window frames were typically painted dark colors.



Typical French Eclectic Revival Architectural Features

### NEOCLASSICAL REVIVAL (1900s – 1920s)



Often mistakenly called Colonial Revival due to the common belief that that the founding fathers were the first Americans to build houses fronted with white columns; however, the truth is that only a handful of Colonial houses are known to have a Classical portico.

There are many smaller Neoclassical Revival Bungalow homes in the City, as pictured left, primarily located in and around the City's original downtown area; however, none of the larger Neoclassical Revival style homes may be found within the City. Examples of the larger Neoclassical Revival style homes are pictured below. The bungalow variation of the style is very appropriate for infill

development within with the historic neighborhoods of Ontario.

### **Common Features**

- Hipped roofs with a prominent central dormer
- Colonnade porch, which may extend either the entire or partial width of the house
- Columns either with or without flutes .
- Corinthian or Ionic capitals
- Boxed eaves with a moderate overhang
- Dentils or modillions
- Wide frieze band

to accentuate them.

- Rectangular double or single-hung windows, with wood frames (typically, a multi-paned upper sash, with a single paned lower sash)
- Simple wood doors with a stained finish

### Colors

Example of the Neoclassical Revival Style Homes were typically painted in color schemes consisting of 3 to 5 colors. Palettes were very



eclectic, ranging from bright colors to muted tones. Every detail was painted in a different color

### CRAFTSMAN (1895 - 1920s)



The Craftsman Style was evolved from the Arts and Craft movement that originated in England in the late 1800s. The Craftsman variation of the bungalow is the dominant home style in Ontario's historic neighborhoods. There are several excellent examples of the Craftsman style in Ontario, such as the Latimer House shown left, along with an abundance of Craftsman Bungalows. The Craftsman style flourished in Southern California, with some of the best examples of the style located in local neighborhoods. The most famous Craftsman style architects were Charles

and Henry Greene, better known as Greene and Greene Architects. The best collection of their work is in several neighborhoods in Pasadena, including the Gamble House, shown below.

The Craftsman style developed as a contradiction to the Victorian era that preceded it. It was the first style that emphasized natural materials and functionality. The details were simple, contradicting the gingerbread of the Victorian home. The wood was stained, instead of painted, and the homes featured built in cabinets, buffets, and benches. The moldings and other trim work was simple shapes, which could create complex designs. Tile fireplaces were also used.

#### Common Features

- Exposed rafters
- Low-pitched gable roofs or variations of the gable roof, such as the cross gable
- Wood siding or shingles for exterior walls
- Large porches
- Rock foundations and bases
- River rock or brick columns
- Exposed wood beams and posts on porch structure
- Simple and large exposed attic vents
- Rock or brick chimneys
- Individual casement, double or single-hung wood frame windows
- Stained glass windows used to accent an interior or exterior feature
- Simple doors, which could include stained or beveled glass panels
- Larger homes had glass sidelights, with either stained or beveled glass to match front door



Example of the Craftsman Style

#### Colors

Homes were typically painted in color schemes consisting of 3 to 5 colors. Base colors were typically dark earth tones, usually browns or greens. Trim Colors were typically in contrast the base

color. Darker homes used lighter colored earth tones, such as beiges and tans, with lighter homes using darker trim colors. Window frames and end rafters would typically be painted a third accent color, closer in shade to the base color. Exposed roof and porch beams would typically be painted dark brown. One alternative to the color scheme would be mixing color palettes, for example, a maroon base, an olive green trim, and a dark brown window frame.





### PRAIRIE (1900s – 1920s)



Developed by Frank Lloyd Wright during the early part of his career, the Prairie style was developed to create a unique American style of architecture appropriate for the Midwest. Although not used historically in Ontario, the Prairie style would be compatible in most neighborhoods as an infill structure, or as part of new development.

The most famous Prairie style homes are in around Chicago and its suburb, Oak Park. The best examples

of the Style are the Robie House, pictured above, and the Dana Lawrence House, pictured right.

Many of the features common to a Prairie style house are similar to those on a Craftsman style home. For example, both styles extensively used stained glass and wood on the interior of the homes, and both styles used built-in cabinets and buffets.

#### Common Features

- Large overhanging roofs
- Covered terraces
- Low pitched hipped roofs
- Stucco for exterior walls
- Large porches
- Extensive use of brick
- Banding of windows
- Individual casement or single-hung windows
- Stained glass windows to accent interior or exterior features
- Simple wood doors with a stained finish, which could include beveled glass panels
- Some larger homes included glass sidelights, with either stained or beveled glass to match the front door

### Colors

Homes were typically painted in color schemes consisting of 3 colors. Base colors were typically light to medium earth tones, usually browns. If the base of a home was brick, it would be left exposed. Trim Colors were typically in contrast the base color. Darker colors, usually earth tones, were used. Window frames would be painted a third accent color, usually a darker color, such as maroon.



Example of the Prairie Style

### ART DECO (1920 – 1940s)



The Art Deco style became a fad by the late 1920s, remaining popular through the 1930s. It is known for extensive use of decoration, and its use of angular and geometric shapes. Hard edges, geometric shapes, and bright colors emphasized the style. The Art Deco style was popular with, and most famous for, its commercial buildings, but rarely found in homes. There are no examples of an Art Deco home in Ontario, but there are several examples of commercial buildings with strong Art Deco elements within the City's original downtown area (pictured above left and below right).

Several famous landmark buildings in Southern California are excellent examples of the Art Deco style, including the Eastern Columbia Building, and the former Bullock's Wilshire building (now Southwestern Law School), both in Los Angeles.

### **Common Features**

- Smooth wall surfaces, usually stucco (smooth plaster finish)
- Flat roof with coping
- Towers and other vertical projections
- Decorative motifs such as chevrons, zigzags (usually on towers)
- Geometric shapes
- Hard corners
- Carved ornaments
- Fluted columns and pilasters
- Windows grouped to create strong vertical lines and to emphasize the tower elements
- Storefronts were typically large plate glass windows, with a short bulkhead located at ground level
- Glass doors with metal frames, usually painted to resemble copper or other metals

#### Colors

The Art Deco style is known for the use of bright colors, usually pastels, with the darker color for the base. Metallic colors, such as copper, brass, and gold, were used on windows and doors.



Typical Art Deco Architectural Features

### ART/STREAMLINE MODERNE (1920s – 1940s)



Developed during the early days of the depression, the Art/Streamline Moderne style is a contrast to the Art Deco style. The style was inspired by technology and the emerging love affair America had with machines. The style is simple, and functional. It is also most famous for its commercial buildings, although houses were also designed in the style. There are numerous examples of Art/Streamline Moderne buildings within Ontario, such as milking barns located within the New Model Colony area, pictured above left, and a small number of commercial buildings within the City's original downtown area, pictured below.

Several famous landmark buildings in Southern California are excellent examples of the Art/Streamline Moderne style, including the Pan Pacific Auditorium and the Walt Disney Studios.

### Common Features

- Smooth wall surfaces, usually stucco (smooth plaster finish)
- Flat roof with coping
- Horizontal grooves or lines in walls
- Curved walls and windows
- Horizontal orientation
- Windows grouped to create strong horizontal lines
- Glass block commonly used
- Large plate glass storefront windows, with a short bulkhead located at ground level
- Glass doors with metal frames

### Colors

The Art / Streamline Moderne style used subdued colors. Base colors were typically light earth tones, usually off-whites or beiges. Trim Colors were typically bright or dark, to contrast the light color of the walls.





Examples of the Art/Streamline Moderne Style Taken from Ontario's Original Downtown Area

### **MISSION REVIVAL (1890 – 1915)**



Developed earlier than the more well-known Mediterranean Revival style, the Mission Revival style became popular after several expositions and fairs that showcased the style in the mid-1890s.

Several Buildings in Ontario were built in the Mission Revival style, including the Union Pacific Railroad Station (demolished) and the stone warehouses at Guasti. However, the best examples of the style in the City are located on the Chaffey High School campus such as Gardner Springs Auditorium, pictured left, Chaffey Memorial Library, and North Hall, pictured below.

### **Common Features**

- Ornate low-relief carvings
- Curvilinear roof gables reminiscent of the Baroque style
- Balconies on multi-story buildings
- Stucco or plaster walls
- Arcades (arched or post-and lintel)
- Towers (square or round)
- Decorated parapets
- Individual casement windows with wood frames
- On some occasions, metal window frames were used to replicate ironwork used elsewhere on the building



### Colors

Homes were typically painted white, with a second trim color. A third color was occasionally used on the window frames.





#### Typical Mission Revival Architectural Features
## MEDITERRANEAN REVIVAL (1900s to 1930s)





The Mediterranean Revival style is a mix of various elements and influences. It incorporates features and elements from the Spanish Colonial and Moorish Architecture in Spain and Portugal, Italian architecture, as well as the California Missions. Most 1920s Mediterranean Revival buildings were influenced by rural Italian villas and could be termed as a Rural Tuscan style.

The Mediterranean Revival style is the second most prevalent style in the City, following the Craftsman style. The best example of the Mediterranean Revival style in the City is the Guasti Villa, pictured left-top, which was influenced by Italian architecture. Numerous other examples of the style can be found throughout the City's historic districts, such as the Ester Anderson House, pictured left-bottom.

### Common Features

- Ornate low-relief carvings, highlighting arches, columns, window surrounds, and cornices and parapets
- Curvilinear gables
- Wing walls
- Red tile hipped roofs
- Stucco or plaster walls
- Arched or straight windows, with fancy wrought iron grilles
- Niches
- Decorative vents
- Arcades (arched or post-and lintel)
- Towers (square or round)
- Decorated parapets
- Elaborate chimney tops
- Loggias (galleries or corridors, typically at ground level)
- Extensive use of tile (both interior and exterior)
- Individual casement windows, or single-hung windows with wood frames
- Occasionally, metal window frames were used to replicate ironwork used elsewhere on the house
- Carved wood doors with stained finish.

#### Colors

Homes were typically painted white, with a second trim color. Occasionally, a third color was used on window frames.

## PUEBLO REVIVAL (1900s - 1930s)



Pueblo Revival, popular between 1905 and 1940, was an imitation of the earlier Indian pueblos of the Southwest. The key distinguishing elements are the projecting roof rafters call vigas. These generally round or square rafter ends protrude from the wall near the roofline. The roof of the Pueblo Revival structure is usually flat or slightly sloping, behind a low parapet. Walls are occasionally stepped or terraced. Round corners, battered walls, and straight-headed windows are also characteristic. Most structures are stucco, and are meant to imitate the adobe walls of the Indian pueblo. Some houses may combine elements of the Spanish Colonial Revival with the

Pueblo Revival style.

There are not many Pueblo Revival style homes in Ontario. The largest concentration of Pueblo Revival style houses is located in the El Morado Court Historic District. An example of the style is pictured above.

### Common Features

- flat roof
- projecting roof rafters (vigas)
- battered walls
- stepping or terracing
- Individual casement windows, or single-hung windows with wood frames
- Occasionally, metal frames are used to replicate the ironwork used elsewhere on the house
- Simple wood doors with a stained finish



Typical Pueblo Revival Architectural Features

### Colors

Homes were typically painted white, with a second trim color. Occasionally a third color was used on the window frames.

# SPANISH COLONIAL REVIVAL (1915 – 1930s)



The Spanish Colonial style was developed as a direct result of the Mission style. The style became popular after the 1915 San Diego Exposition, which showcased the style. Most formal designs are influenced more by Italian architecture, and most informal designs were influenced by Spanish and Portuguese architecture.

There are only a few known examples of the style in Ontario. The most significant of this style is the Paul William's designed "Old Post Office", pictured below, and located on Transit Street.

### **Common Features**

- Stucco surfaces
- Low-pitched tile roofs
- Limited number of openings
- Opening deeply recessed into walls
- Close relation to outdoors through use of terraces
- Use of pergolas
- Formal axial garden design
- Use of decorative ironwork on windows, doors, balconies, and roof supports
- Individual casement windows, or single-hung windows with wood frames
- Occasionally, metal frames are used to replicate the ironwork used elsewhere on the house
- Simple wood doors with a stained finish

#### Colors

Homes were typically painted white, with a second trim color. Occasionally, a third color was used on the window frames.



Typical Spanish Colonial Revival Architectural Features



# MONTEREY REVIVAL (1920s – 1940s)



The Monterey style is a cross between the adobe architecture of the California Mission period and the New England Colonial architecture prevalent in the mid-1800s. The homes are a basic New England Colonial design, with an added second floor porch, along with architectural features common to adobe architecture, such as stucco walls.

The Monterey style was not as popular as other period revival styles that were popular at the time. The Monterey style is rare in Ontario, with only a handful of examples, as pictured above and below right.

### **Common Features**

- Wood shake or red "mission" tile roof
- Second story porch across entire front of the house, typically cantilevered
- Stucco or plaster exterior walls
- Window shutters
- Symmetrical design
- Individual single-hung windows with wood frames
- Simple wood doors with a stained finish

#### Colors

Homes were typically painted white or other light colors with a second trim color.





**Typical Monterey Revival Architectural Features** 

# USONIAN (1920s - 1960s)



Developed by Frank Lloyd Wright in the 1930s, The Usonian style (named after the United States) was Wrights answer to the growing popularity of the International style. The style integrated elements of the International style with Wright's principles of "Organic Architecture." The Usonian style used the flat roof simplistic styling of the international style, but incorporated elements natural to the particular site, such as stone and wood siding.

The Usonian style was not widely used in

Ontario; however, use of the style could be suitable on an infill site. Of the few the Usonian style homes in City, one of the superior illustrations is the Dr. Robert Williams House, pictured above left. Another notable Usonian home is pictured right.

### **Common Features**

- Open plan
- Large overhanging flat roofs, on occasion, low pitched gable roofs were used
- Concealed front entrances
- Board and Batten siding
- Large floor to ceiling windows
- Brick used as accent material
- Banding of windows
- Individual casement windows
- Simple, single panel doors

### Colors

Homes were not typically painted except for an accent color. If the siding was left natural to weather and brick, if used, would be left exposed. Window frames and some trim would be painted a complementary accent color, such as maroon.



# MINIMAL TRADITIONAL (1930s - 1950s)



The Minimal Traditional style was a transition between the revival styles of the 1920s and 30s and the post war tract homes. The style referenced traditional styles without actually achieving a specific style. Elements common to many styles, but belonging exclusively to none, are favored. These include gables, chimneys, and shutters. Houses of this style may be built of virtually any traditional material; brick and wood are common. Roofs always lack the eaves or overhangs found on styles that are more assertive. Most examples are single story or one and one-half story in height. Homes depicting this style are pictured above and below right.

## Common Features

- Asymmetrical design
- Shallow to medium-pitched gable or hipped roof, usually with no eaves, and a front endgable
- Small entry porch with simple pillars or columns
- Simple floor plan, rectangular in shape and often with small ells
- Garages may be either attached to, or detached from, the main house
- Exteriors incorporate a variety of materials, wood siding or brick were common
- Minimal exterior ornamentation, limited to decorative details on windows (typically shutters)
- Double-hung windows with multiple panes
- Simple wood doors, which may include glass panels

### Colors

Homes were typically painted a light or white color with a dark accent color.





Example of the Minimal Traditional Style

# CALIFORNIA RANCH (1930s – 1960s)



The Ranch style was created from a mix of styles, including the Craftsman, Prairie, and Minimal Traditional styles, as well as elements of the Spanish Colonial style. This mix of styles was combined with the emerging lifestyle changes of Americans after World War II.

Although not as popular in Ontario as the Early Tract homes, there are several examples of the Ranch style. One of the best examples of this style is the Rehkop House on Armsley Square, pictured above left.

### Common Features

- Asymmetrical design
- Spreading, horizontal orientation
- Hip or gable roof, often with deep overhang
- Logical, open floor plan in a rectangular, L, or U-shaped configuration
- Minimal ornamentation
- Attached garage
- Minimal or no front porch stoop
- Board and batten or clapboard siding, or stucco, or a combination
- Brick chimneys
- Picture and casement windows
- Individual casement, aluminum frame windows. Sliding windows were also used.
- Plain doors painted an accent color

### Colors

Homes were typically painted in color schemes consisting of 2 to 3 colors. Palettes were muted tones. Trim was usually a brighter color. Sometimes a third accent color was used.



**Typical Ranch Architectural Features** 

# EARLY POST-WAR TRACT (1940s - 1960s)



The Early Post War Tract style has its roots in the international style of architecture, which was popular in the 1940s through the 1960s. After World War II, the demand for housing was high, and developers began creating tracts of homes with similar plans and exterior elevations. This was the first time that housing was mass-produced. Ontario, like many other communities in Southern California, has many early tract homes, as pictured left and below. Many of these homes, however, have been altered over the years, and no longer retain their original appearance.

## Common Features

- Stucco exterior walls
- Low pitched gable or hipped roofs
- Small porches, if any
- Front or side facing garages
- Very few exterior details
- Single story
- Aluminum sliding windows (homes built during and immediately after World War II used wood frame single-hung or casement windows), with no trim
- Single panel doors

### Colors

Homes were typically painted white on the base, with a variety of trim colors.





Examples of the Early Post War Tract Style

# MODERN (1930s – 1960s)



Modern architecture breaks away from cookie-cutter desian traditional and aesthetics. It strives to create home designs that go beyond "standard" ideas, and instead, pursue projects inspired by layout, location and function. Frank Lloyd Wright's mentor, Louis Sullivan, famously stated that, "Form follows function". This idea is expressed by Modernisms' tendency to have land or the function of a project dictate much of the design ideas. For example, Wright was famous for building with the land - his residential homes almost always relied on the lot to determine how the building was to be

laid out. Wright believed that a building should be "one with the land" and not simply plopped down on top of it. Modernist architecture takes inspiration from the project itself — if the project is meant to showcase something, house something particular, or be occupied by a particular person, Modern architecture's aim is to design for each unique situation and to be inspired by its purpose.

### Common Features

- Open floor plans
- Typically free of clutter and unnecessary elements
- Materials are shown in the natural form and are showcased
- Structural elements are revealed to show the structure and supports
- Strong linear elements and bold horizontal and vertical features
- Lines tend to be straight and angled rather than curved
- Multiple roof lines at different levels
- Often feature floor-to-ceiling windows, clerestory windows, and sliding doors
- Incorporates the topography of the land it is built on
- Focus on materials, and new technologies and building techniques

### Colors

Where color was used, it was subtle; many buildings were designed to be white or neutral, with black or gray contrasting elements.





**Examples of the Modern Style** 

# INTERNATIONAL (1930s)



The International style was born from the Modern Art movement, and evolved from the Bauhaus School during the 1920s and 1930s. The style relied on pure geometric forms, with ornamentation stripped from facades to reveal the essential line and curve that defines space.

The International style is predominantly found in the commercial application of skyscrapers and office buildings, and less often in residential architecture. The Sears Tower and the John Hancock Center in Chicago, are the epitome of International design. Single-family residential homes are unusual, but not unknown. Architect Richard Neutra's home, the VDL Research house located at 2300 Silverlake Boulevard (shown above), is a prime example of the use of

International design in residential architecture.

Buildings constructed in the International style are characterized by flat, unornamented planes for roofs, walls, and windows. Composition is often asymmetrical, with interesting contrasts between flat planes and curved elements. Strong horizontal lines are apparent in the arrangement of windows and other design features. Building materials were utilitarian; concrete, glass, aluminum, and steel were commonly used. Revealing the skeleton frame construction was frequently an integral part of International design. Windows were often metal framed casements arranged in horizontal bands.

### Common Features

- Utilitarian materials such as concrete, steel, and glass
- Flat roof
- Flat, smooth surfaces, and flat unadorned planes
- Use of ribbon windows, often meeting at corners
- Rounded corners
- Metal casement windows and fixed windows with a metal frame
- Simple doors, which could include glass panels
- No window or door trim

### Colors

HACINGE-LIKE WALLS WALLS HORIZONTALITY WAS STRESSED WITH RIBBON WINDOWS AND LONG, LOW BUILD ING FORMS. WITH THE WITH THE WALL SURFACE.

Typical International Architectural Features

Where color was used, it was subtle; many buildings were designed to be white or neutral, with black or gray contrasting elements, and a factory finish (usually anodized aluminum) on window frames.

# **CORPORATE INTERNATIONAL (1940S)**



The Corporate International style consists of a moduled thin metal and glass skin, which is independent of the Structural elements of the building. The style was derived from the architecture of Mies Van der Rohe. Many high profile architects used the Corporate International style, including the architectural firm of SOM (Skidmore, Owings, and Merrill). The style was widely used in Southern California into the 1980s.

There are several buildings constructed in this style, and it is very compatible with large buildings constructed in the eastern part of Ontario.

## **Common Features**

- Vertical Box form
- Form appears set above ground on stilts
- Little articulation of windows and other elements
- Horizontal layering of floors
- Repetitious cell-like character of interior spaces
- Flat roofs
- Extensive use of glass
- Metal frame windows
- No window or door trim
- Simple doors with metal frames, which could include glass panels

### Colors

Buildings were typically painted white, with either a second color or no color (factory finish, usually anodized aluminum) on the window frames. Some examples of style were not painted, typically when constructed of poured-in-place concrete, prefabricated concrete panels, or glass.



Example of the Corporate International Style

# GOOGIE/50s (1950s)



Often called Coffee Shop architecture, the Googie style became a dominant style for coffee shops and other restaurants. The Googie style was flamboyant and expressive, and developed out of the technological advancements of the time, including jet planes and spaceships. This futuristic style architecture is best exemplified by the buildings seen in Tomorrowland, at Disneyland. Additionally, the original Norm's restaurants, pictured left, were a classic example of this style of architecture.

### **Common Features**

- Large roofs
- Sharp angles, and shapes
- Various material, such as exposed decorative steel beams, glass block, stainless steel, etc
- Stucco for exterior walls
- Large picture windows
- Bright colors
- Signage integrated into design of building, use of neon
- Large, single pane picture windows
- Simple wood doors with a stained finish, which could include glass



### Colors

Colors varied building to building, typically because of corporate colors and signage. Colors were very bright and would have a great deal of contrast between colors.



Examples of the Googie/50s Style

# BRUTALISM (1960s)



This style was originally used to describe the work of British architects that allowed all of the building elements and systems to be exposed. The concrete buildings of Le Corbusier and others eventually were classified under this style. Brutalism is in direct opposition to the Corporate International Style. Buildings are heavy and monumental, as exemplified by the Trelik Tower, in London, and the J Edger Hoover Building (FBI Headquarters), in Washington DC, pictured below right, in contrast to the lightweight feel of the Corporate International style.

There are not any known buildings within the City that are wholly constructed in the Brutalism style; however, Ontario City Hall, pictured left, contains many elements of Brutalism, exemplified by the use of exposed concrete surfaces left in its rough state, with exposed board and form work. The style would be very compatible with the tilt-up concrete building constructed within the easterly portion of the City.

### **Common Features**

- Variety of forms, including vertical and horizontal projections, roof forms, shapes
- Combining walls and structure into one form
- Structure predominates
- Infill walls created to join walls and structure where separate (typically brick or other materials)
- Openings introduced as holes in structure walls
- Exposed concrete surfaces
- Exposed ductwork, pipes, vents, etc.
- Fixed single-paned windows with metal frames
- Simple metal doors, sometimes with glass panels

#### Colors

Buildings were typically not painted. Only windows doorframes would have any color.





Examples of the Brutalism Style

# NEW FORMALISM (1950s to 1970s)



New Formalism developed in the mid-1950s and continued into the early 1970s, as a reaction against the rigid formulae of the American version of the International Style. New Formalism architecture combines decorative elements and established design concepts of classicism with the new materials and technologies incorporated in the International style. Edward Durrell Stone's New Delhi American Embassy (1954), pictured above, which blended the architecture of the east with modern western concepts, is considered the start of the New Formalism style.

The New Formalism style was used primarily for high profile cultural, institutional and civic buildings. Within the Southern California region, the style was applied mainly to museums, auditoriums, and college campuses. The University of Southern California, the California Institute of Technology, and Harvey Mudd College in Claremont (pictured below, bottom), all have significant buildings of the New Formalism style. Other local examples of New Formalism include the Ahmanson Center in Los Angeles and the Ambassador Auditorium in Pasadena (pictured below, top).

### **Common Features**

- Use of traditionally rich materials, such as travertine, marble, and granite or man-made materials that mimic their luxurious qualities
- Use of arches, columns, and other classical elements
- Buildings usually set on a podium
- Designed to achieve modern monumentality
- Embraces classical precedents, such as arches, colonnades, classical columns and entablatures
- Smooth wall surfaces
- Delicacy of details
- Formal landscape design, such as pools, fountains, and/or sculptures within a central plaza
- Fixed single-paned windows with metal frames
- Simple metal doors, sometimes with glass panels

## Colors

Buildings were typically painted in a light or neutral color, also stone or other materials were left exposed. Accent colors were typically dark, rich colors.





Examples of the New Formalism Style

# POSTMODERN (1970s)



Postmodern architecture is cited as an international style with examples beginning in the 1950s; however, it did not become a recognized style until the late 1970s. Postmodern architecture replaces structured modernist form and function with an eclectic blending of borrowed styles. Influential early large-scale examples of postmodern architecture are Michael Graves' Portland Building in Portland, Oregon (pictured top left), and Philip Johnson's Sony Building (originally AT&T Building) in New York City (pictured below right), which borrows elements and references from the past and reintroduces color and symbolism to architecture.

Within the City, there are not any known buildings constructed in this style; however, the style would be compatible for use in most areas of Ontario.

### Common Features

- Use of features from earlier modern architectural styles, such as Art Deco and Streamline Moderne
- Use of classical columns, usually Tuscan order (or variations thereof)
- Use of arches, typically with keystone
- Circular and Lunette windows
- Prominent entrances
- Occasional use of pediments
- Deliberate placement of incompatible geometric forms
- References to aspects of historical or vernacular architecture
- Traditional and modern construction techniques juxtaposed for effect
- References to the form or detail of adjacent buildings
- Primarily rectangular windows, with circular, arched and lunette windows used at entrances and other areas to accent building
- Simple doors, which can include a variety of different shaped glass panels



### Colors

Buildings were characteristically painted in bright colors. Typically, 3 to 5 colors were used.

# **DECONSTRUCTIVISM (1970s)**



Deconstructivism takes an approach to building design that views architecture in bits and pieces. The basic architectural elements of a building are dismantled. Deconstructivist buildings may seem to have no visual logic. They appear to be made υp of unrelated, disharmonious abstract forms. The Deconstructivism movement has

been led by architect Frank Gehry. His design for the Guggenheim Museum in Bilbao, Spain (pictured top-left), has become world famous. There are many examples of Deconstructivism in Southern California, since Gehry's practice is based here. One of the best examples in Southern California is the Walt Disney Concert Hall located in Downtown Los Angeles (pictured below).

### Common Features

- Abstract, unrelated forms
- Smooth exterior surface
- Use of metal, typically a stainless steel or similar material, as exterior siding
- Contrast in shapes and forms
- Large expansive windows in metal frames, hidden in the abstract forms of the walls
- Glass panel doors with simple metal frames

### Colors

Buildings were typically painted a variety of colors, or when metal was used, it was left exposed.



(The Downtown Ontario Design Guidelines, adopted by the Ontario City Council on August 18, 1988, by Resolution No. 98-102, follows this page)

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# Reference D: Residential Design Guidelines

Sections:

<u>D.01.001</u> :	Purpose
<u>D.01.002</u> :	Applicability
<u>D.01.003</u> :	Neighborhoods
<u>D.01.004</u> :	Single-Family Residential Development
<u>D.01.005</u> :	Multiple-Family Residential Development

### D.01.001: Purpose

A. The design guidelines for residential developments contained in this section are applicable to all residential zoning districts, and are intended as a reference to assist the designer in understanding the City's goals and objectives for high quality residential development. The guidelines compliment the mandatory development regulations contained in this chapter, by providing good examples of potential design solutions and by providing design interpretations of the various mandatory regulations.

**B.** Furthermore, it is the intent of these guidelines is to ensure that single-family residential developments are architecturally diverse, and appear to be neighborhoods that have evolved naturally over time, rather than master planned communities.

### D.01.002: Applicability

A. The Residential Design Guidelines are general and may be interpreted with some flexibility in their application to specific projects. Variations may be considered for projects with special design characteristics during the City's development review process to encourage the highest level of design quality while at the same time providing the flexibility necessary to encourage creativity on the part of project designers. Nonetheless, unless there are compelling reasons or practical difficulties, these guidelines shall be observed.

**B.** Determinations of compliance with the Residential Design Guidelines shall be made by the Approving Authority.

**C.** These Residential Design Guidelines are authorized by Subsection H of Development Code Section 6.01.010, and are enforceable in the same manner, and to the same extent, as any other applicable requirement of the Ontario Development Code.

### D.01.003: Neighborhoods

A. Mix of Uses. Neighborhoods should be designed to promote a mix of uses, including parks, religious assembly, and schools. Additionally, neighborhood commercial centers are encouraged to be integrated into neighborhood design.

## **B.** Neighborhood Design and Orientation.

1. Neighborhoods should be oriented around community uses, such as parks, schools, and neighborhood commercial centers (see example, right).

2. Neighborhoods that are segregated from other uses, forcing residents to commute by automobile to reach services, should be avoided.

3. Neighborhoods should be distinguished from one another using edges and landmarks that are formed with trees, open space, parks, natural features, or major streets.



**C. Mix of Housing Types.** A mix of housing types and sizes are encouraged. Mixing multiplefamily housing into single-family neighborhoods, and varying the size and dimensions of detached lots, is encouraged. Neighborhoods that have little variation in housing type and lot size should be avoided.

**D.** Encourage Outdoor Activity and the Use of Alternate Forms of Transportation. Neighborhoods should be designed to promote a sense of community, and to encourage outdoor activity and alternate forms of transportation. The use of landscaped parkways, street design, mixed uses, and building orientation and design can encourage outdoor activity and the use of alternate forms of transportation. Neighborhoods that are designed with a reliance on automobile transportation, and do not provide pedestrian linkages, are discouraged.

**E.** Neighborhood Connectivity. Neighborhoods should be designed to be integrated with other areas. An interconnected pattern of streets and pedestrian pathways should be provided in projects exceeding 3 acres.

1. Local streets networks should be designed to provide increased connectivity between neighborhoods.

2. The street network should be based upon a grid system, with local streets connections to arterial streets occurring at least every onequarter mile on average. This level of connectivity should allow residences to face streets with acceptable traffic volumes and create safer walking environments where complementary land uses, such as retail and office uses, are located in close proximity.

3. The use of cul-de-sac and dead end streets should be avoided. When cul-de-sac streets are necessary, pedestrian connections should be created to allow for access to either open space or other streets (see example, right).



4. Neighborhoods should be designed to include paseos (see example, right), trails, or other connections to community facilities. Paseos should be used for pedestrian connections at terminus of cul-de-sac and dead end streets. Neighborhoods designed without connections to community facilities should be avoided.

F. Protect Natural Features. Neighborhoods should be designed to protect natural features. Natural areas can enhance a neighborhood while protecting the environment. Developments that alter or destroy natural features should be avoided.



G. Neighborhood Circulation. Streets should

be designed to provide an increased sense of neighborhood and community, reduced reliance on the automobile, promote energy conservation, and a more attractive, aesthetically pleasing streetscape.

1. <u>Reduced Width Streets</u>. Narrow streets help reduce automobile speeds, which create a safer environment for residents. Neighborhood (local) streets should be designed for residents of the neighborhood and not as automobile thoroughfares. Large streets should be avoided.

2. <u>Streetscape</u>. Landscaped parkways provide a more attractive streetscape and create a buffer between automobile and pedestrian traffic.

**a.** All neighborhood streets should be designed with landscaped parkways, which are irrigated and permanently maintained. Streets with sidewalks adjacent to the curb should be avoided.

**b.** Trees planted within landscaped parkways create a pleasant environment for pedestrians, and provide shade during the hot summer months. Street trees should be shade trees that are deciduous or evergreen. Trees such as palms and other non-shade trees should be avoided.

c. Alleyways should be designed with the same considerations as streets. Alleys have earned a reputation as being high crime, dirty areas. Alleys should be designed as

mini-streets, generally providing the same amenities as streets, including landscaping and lighting.

## H. Transit.

1. Residential neighborhoods should be designed to take advantage of mass transit opportunities. Neighborhood edges along arterial and collector streets should provide transit stops, including turnouts for bus stops. Neighborhoods without transit connections should be avoided.



2. Transit shelters should be designed to fit into a neighborhood. Transit shelters that are incorporated within the form of a building, such as under an awning or arcade, are encouraged. For freestanding shelters, the developer should explore with the transit agency and the City, possibilities for a structure that is integrated architecturally with the project through its color, materials and architectural style.

### D.01.004: Single-Family Residential Development

A. Introduction. The intent of these guidelines is to ensure that single-family residential developments are architecturally diverse and appear to be neighborhoods that have evolved naturally over time rather than master planned communities. Variation in home sizes, floor plans, elevations, and lot sizes contribute to such diversity. The use of regional architecture styles, such as Craftsman, Spanish Colonial Revival, Monterey, Mission Revival, and Bungalow, are encouraged.

## B. Site Planning.

1. <u>Project Entry and Character</u>. Project entries should incorporate special paving, architectural elements, and landscaping treatments to set the overall tone for the development's character and design. In larger projects, a hierarchy of design should be established, with smaller, but similar, secondary entry features that serve to further distinguish the character of the project.

a. Project entry features shall reflect the overall architectural identity and character of a residential subdivision or development project. Entry features should consist of authentic materials (natural rock and stone, brick, wood, ironwork, etc.). Stucco is discouraged unless true to the architectural style of the home, such as Spanish Colonial Revival, Monterey and Mission Revival architectural styles.

**b.** A combination of the accent features should be incorporated into project entries, such as lighting, public art, specimen trees, landscaped medians, stone wall features, water features, architectural monumentation, and signage.

c. Colored and textured paving treatment should be integrated into vehicle and pedestrian entries of a project.

2. Lot Design.

a. Single-family lot patterns should be varied to avoid monotonous streetscapes.

**b.** No street should have more than 5 consecutive lots of the same width and area.

c. For projects larger than 3 acres, lot sizes should vary from the average lot size by at least 20 percent for at least one-third of all lots.



3. <u>Circulation</u>. Single-family residential development should have a circulation network that will efficiently interconnect all parts of the neighborhood. All modes of transportation -- vehicular, transit, bicycle, and pedestrian -- should be integrated into the circulation network.

a. Blocks within single-family residential subdivisions should be 300 to 400 FT in length, with a maximum length of 500 FT.

**b.** Single-family residential developments should provide vehicular, bicycle, and pedestrian connections to adjacent residential and non-residential areas.

c. Security walls and fences should not be used to define a "neighborhood edge" because they isolate neighborhoods from surrounding areas. Pedestrian access and mobility through neighborhoods is encouraged. Walls and fences may be appropriate as a "land use edge" treatment, depending on the type of adjoining use(s).

d. Where shrub planting or low walls are used for screening, allow for a clear line of site into the area.

e. A street circulation network should provide access to all areas of the development. Dead end streets are discouraged.

f. The circulation network design shall consider the location of street trees, parkways, pedestrian scale lighting, sidewalks, and on-street parking, along with determining the appropriate relationship between street widths and building setbacks.

**g.** In addition to walkway lighting, peripheral lighting shall be provided for neighborhood streets to provide security.

h. Neighborhood streets should be as narrow as possible and shaded by rows of trees. These techniques slow traffic and create an environment suitable for pedestrians and bicycles.

i. Streets should be bordered with a street-adjacent minimum 5-FT wide landscape and irrigated parkway, and a minimum 5-FT wide sidewalk.

4. <u>Building Placement</u>. Building placement should enhance the quality of the streetscape. Neighborhood development should provide variation in lot sizes and building placement to avoid a repetitive and regimented appearance.

a. When siting homes, care should be taken to highlight view corridors of the surrounding mountains from streets and neighborhood open spaces.

**b.** Architectural diversity in neighborhoods should be enhanced by providing a variations in lot widths, interior and street side setbacks, and building heights at the rate of every fourth house. Additionally, to create a varied streetscape, the front setback should be staggered an additional five feet at the rate of every fourth house.

c. No two identical floor plans should be placed on adjacent lots.

d. Residents should be provided with privacy, both inside and outside their homes, by utilizing site layout techniques, such as alternating the placement of windows, rear yard outdoor patio areas, and entrances on adjacent lots. Windows on adjacent properties shall not be located directly across from one another.

e. Maximize energy conservation by considering climactic factors, such as prevailing winds, shade trees, window and door orientation, and the positioning of buildings on the site.

5. <u>Building Orientation to the Street</u>. Homes shall be oriented towards the street to establish a sense of belonging and community for the residents.

a. Homes and other structures shall be sited to define the street environment and the transition between public and private space.

**b.** Residential development on a single loaded street shall look onto the adjacent open space.

c. Lots should not be centered on "T" intersections, as noise and glare from oncoming vehicle headlights is often problematic for homes on those lots.

(1)

(2)



Side-Facing Garage Orientation



6. <u>Off-Street Parking and Access</u>. Parking lots for cluster-type single-family developments, and garages in conjunction with single-family homes, should be as invisible as possible.

a. In new subdivisions, no more than one plan-type should have a garage that extends beyond the main portion of the home. All other plan types should vary garage door placement and layout to de-emphasize the garage. Possible techniques include:

rear;

Locate the garage at the rear of the lot, accessible from the side or

Recess the garage at least 7 FT behind the face of the main living

portion of the home;

(3)

3) The garage door must be architecturally compatible with the style

of the house;

configuration; and

- (4) Locate the garage perpendicular to the street, in a side-on
- (5) Provide shared driveway access.

**b.** Garages should be used for vehicle parking and should not be used for storage, except within areas of a garage specifically designed for storage pursuant to Subsection C (Storage) of this Section.

c. Lots with public alley access should provide parking (garages, driveways, and parking lots) access from the alley rather than from the public street.

d. The use of tandem parking bays are generally not recommended, but may be used in certain special circumstances, such as garage spaces provided in excess of the minimum parking requirement or parking for second dwellings on a driveway.

e. If parking spaces for guests are necessary, the parking facilities should be integrated into the overall project design, consisting of small lots located central to the residential units.

f. Parking lots should generally be placed behind buildings, screened from street views. Not more than one-third of any linear street frontage should be lined by parking lots. Parking lots must be setback at least 20 FT behind the front property line and must be screened by a 3-FT high decorative masonry wall and dense landscaping.

**g.** Driveways should be designed to minimize their visual impact on the streetscape, while at the same time providing adequate space for the maneuvering of vehicles. Not more than 25 percent of a property's frontage should be utilized for driveway openings, excepting flag lots and lots fronting a cul-de-sac bulb.

C. Storage. Adequate private storage space should be provided for each single-family dwelling, which is accessible from within the dwelling or garage, or from within rear yard areas. Usable storage space should be provided in addition to the garage parking spaces and necessary utility area. Residential storage should not be allowed on balconies, patios, or porches, or any other areas that are visible from public or private streets, alleyways, or exterior ground-floor areas of neighboring properties.

**D. Building Design.** These guidelines seek to promote high quality architectural designs that enhance the character of City neighborhoods. New developments should utilize architectural styles that complement one another and any nearby existing development. The architectural style and design theme of residential developments should establish a unique neighborhood identity.

1. <u>Architectural Style</u>. For the purpose of these guidelines, "architectural style" classifies architecture in terms of form, techniques, materials, period, and region.

a. Several common characteristics can be used to identify the existing or proposed architectural style of a building, including roof type, symmetry and shape, frame, articulation, massing, windows and doors, building materials and colors, decorative trim, and porches, eaves and columns.

2. <u>Street Environment and Building Frontage</u>. Single-family residential development should efficiently use the site, and relate to the street.

a. Front porches are encouraged to create an attractive interface with front yard areas. Porches should match the scale and be integral to the architectural design of the home.

**b.** The front entry should be the focal point of the home. Roof elements, columns, porticos, or other architectural features should be utilized.

c. Garages in single-family residential neighborhoods should be subordinate to the front of the house and should not dominate the streetscape.

**d.** The height, mass, and appearance of dwellings should include some variation to provide visual interest to the streetscape. The lower floor of a two-story house should use architectural accents, texture, and color to add detail and interest.

3. <u>Building Form and Articulation</u>. Building form and articulation includes variation in wall planes (projections and recesses) and wall height (vertical relief), as well as variations in roof forms and heights to reduce the perceived scale of the structure.

**a.** Single-family dwellings should incorporate articulation on all facades, including variation in massing, roof forms, and wall planes, as well as surface articulation.

**b.** The highest level of articulation will likely occur on the front facade and facades visible from public streets. Similar and complementary massing, materials, and details should be incorporated into every other structure elevation.

c. Elements and details of homes should be true to an established architectural style. While there is no required architectural style for single-family residential projects, the use of styles common to the region, such as Art Deco, Art/Streamline Moderne, Craftsman, Colonial Revival, French Provincial Revival, Mediterranean Revival, Mission Revival, Monterey, Prairie, and Spanish Colonial Revival, are encouraged. The primary focus should be on constructing a high-quality residential environment.

d. Wall planes on all sides of the house should be articulated if visible from a public street or pedestrian pathway.

e. Surface detailing should not serve as a substitute for well integrated and distinctive massing.

f. Architectural elements that add visual interest, scale, and character, such as recessed or projecting balconies, trellises, recessed windows, and porches, are strongly encouraged.

**g.** Architectural elements, such as overhangs, trellises, projections, and awnings, should be used to create shadows that contribute to a structure's character.

**h.** Chimneys should be featured as architectural elements rather than hidden with a wall surface. Chimney caps should be decorative and spark arrestors should be concealed.

i. Variation in mass and building height in higher density developments along streets and public right-of-ways should be incorporated by providing a mix of single-story and two-story homes. Two-story homes should have single-story elements on prominent elevations.

j. A mix of single-story and two-story homes should be included to provide an appealing streetscape with a variety of home types, height, mass, and size.

**k.** Massing should accentuate entries and minimize garage prominence.

I. Porches should be a minimum of 6 FT in depth (measured on the interior side of any posts or railings), with materials and details that are authentic to the architectural style of the home.

4. <u>Building Height</u>. Single-family dwellings should be one or two stories in height. Homes within a development should have varied heights to create visual interest in the neighborhood.

a. Corner lots should feature single-story homes.

**b.** Additions to structures should be designed to be compatible with adjacent structures and the surrounding neighborhood. The height and mass of additions should not adversely affect any adjacent structures.

c. The second story of a house should be designed to reduce the appearance of the overall scale of the structure, depending upon the chosen architectural style. Possible techniques include setting the second story back from the front and sides of the first story, providing larger front and/or side setbacks for the entire structure, and/or concentrate the bulk of the second story floor area over the back one-half of the first story.

d. A second story should not exceed 80 percent of the area of the first floor.

5. <u>Roof and Upper Story Details</u>. Visual diversity should be created by incorporating multiple rooflines and designs, while remaining consistent with the architectural style of the home.

**a.** A variety of roof types should be incorporated throughout the development (e.g., gabled, hipped, dormers, etc.).

**b.** Multiple roof forms (gable, hip and shed roof combinations) should be used to break up the massing of buildings.

c. Various roof forms and changes in roof plane should be used on all exterior elevations visible from a public street or pedestrian right-of-way.

d. Variation in ridgeline height and alignment should be utilized to create visual interest.

e. Full, sloped roofs are strongly encouraged, with both vertical and horizontal roof articulations.

f. Where applicable to the architectural style, roof overhang should extend a minimum of 12 inches, measured from the primary wall surface, to enhance shadow lines and articulation of surfaces.

- g. Roof overhangs should be sized appropriately for the desired architectural style.
  - **h.** Gable ends should face the street.

i. Exposed gutters and downspouts, unless designed as an outstanding feature consistent with the overall architectural theme, should be colored to match the fascia board.

6. <u>Building Materials and Finishes</u>. The use of high quality materials will create a look of permanence within a project. Materials and colors should be varied to generate visual interest in the facades and to avoid the monotonous appearance that is sometimes common in some contemporary residential development projects.

a. Key elements of the building facade should be enhanced with special materials and color.

**b.** Material changes should occur at intersecting planes, preferably at inside corners of changing wall planes, or where architectural elements intersect (e.g., chimney, pilaster, projection, fence line, etc.).

c. Contrasting but complementary colors should be used for trim, windows, doors, and key architectural elements.

d. Roof materials and colors shall be consistent with the desired architectural style.

e. Heavier materials should be used on the lower portion of a building's elevation to form the base of the structure.

f. Paving materials should be compatible with the project aesthetic. The use of permeable paving materials is encouraged.

**g.** Stucco may be an appropriate building material if careful attention is paid to ensure it is appropriate to the architectural style of the house.

7. <u>Windows, Doors and Entries</u>. The desired architectural style of a building can be captured by carefully designing windows, doors, and entries.

**a.** Entrances should be enhanced through lighting, landscaping, and architecture detailing.

**b.** The main entrance to a home should be clearly identifiable and should be articulated with projecting or recessed forms, creating a covered landing that will provide for shelter from the weather.

c. Window type, material, shape, and proportion shall complement the architectural style of the building.

d. Windows should be located to maximize incoming daylight, reduce the need for indoor lighting, and promote energy efficiency through the use of low e-coatings.

e. In order to enhance privacy, windows on side elevations, that face a neighboring dwelling, should be staggered and should not be positioned directly opposite of the adjacent structure's windows.

f. The window design should be appropriate to the architectural style of the structure, and should be articulated with sills, trim, kickers, shutters, or awnings that are authentic to the architectural style.

**g.** Where architecturally appropriate, windows should be generously inset from structure walls to create shade and shadow detail.

8. <u>Garages</u>. Garages that are well integrated into a project will ensure that they do not dominate front facades or the overall streetscape.

a. Garage doors should be recessed a minimum of 6 inches, measured from the face of the garage.

**b.** A garage with doors facing the street should be set back at least 5 feet behind the exterior face of the main house to help reduce the adverse visual impact of the garage.

c. A maximum of 2 garage bays should face the street. Garages with more than 2 bays may face the street if the garage is placed toward the rear of the site, or if a third bay is oriented differently.



d. Garage doors should incorporate panels and/or windows to articulate large planes.

e. The ratio of garage frontage to the width of the house should not be greater than 50 percent.

f. Roof forms, trellises, and balconies should be located above the garage door to help minimize the impact of garage doors on the streetscape.

**9.** <u>Compatibility with Neighborhood</u>. In new developments, single-family homes should vary from neighboring dwellings in architectural style, height, and material selection, while still relating to the overall theme of the larger development as a whole.

a. The same floor plan should not be placed side-by-side, nor should the same exterior colors be used.

b. Homes directly across the street from one another should not have the same floor plan.

**E. Accessory Structures.** Additions, renovations and new accessory structures should be designed to provide variety and interest while creating an overall unified image. Building facades should be designed with consideration of appropriate materials, complementary colors, and by using materials with textures and depth of materials such as brick or stone. The additions of accessory structures should be designed in a manner that is integrated with the existing structures

and avoid the appearance of being simply tacked on by the owner. This can be accomplished by:

- 1. Using similar roof pitches and types;
- 2. Using complementary or consistent materials and colors;
- 3. Designing additions as an integral part of the building;
- 4. Maintaining appropriate proportions of the existing building design; and

5. Maintain a balance between the proportions of the existing building in terms of building mass and scale. Avoid placing architectural elements that are visually more massive or heavier above elements that are visually lighter or less massive.

**F.** Landscaping. Landscaping should be used to define entrances to neighborhoods and homes, to provide a visual buffer between incompatible land uses, and to provide screening when necessary.

1. A variety of height, textures, and colors should be used in the landscape palette. Additionally, a combination of trees, shrubs, and ground cover should be incorporated into landscape plans.

2. Plant materials should be placed so as to not interfere with lighting or line-of-sight, or restrict access to emergency equipment (e.g., fire hydrants, fire alarm boxes, etc.).

**3.** Trees or large shrubs should not be planted under overhead lines or over underground infrastructure if there is a potential that growth may interfere with public utilities.

4. Large specimen trees should be strategically placed to assist new development in looking "established" as quickly as possible.

5. Trees should be properly pruned. When selecting tree species, consider tree and root growth, maintenance, nearby pedestrian activities and vehicular accesses, and potential impacts on the public right-of-way.

6. Trees and shrubs should be located and spaced to allow for mature and long-term growth.

7. Root problems caused by trees and shrubs should be minimized by careful selection and planting procedures. Root barriers should be provided for any tree placed adjacent to pavement, or other situations where roots could disrupt adjacent paving/curb surfaces.

8. Landscaping efforts should be coordinated with adjacent property owners whenever possible to provide a consistent aesthetic.

**9.** Parkways should be planted with shade trees to provide a pleasant pedestrian environment and contribute to streetscape continuity.

**10.** Individual lot landscaping should be compatible with the architectural style, size, and massing of the individual home, creating a diverse streetscape.

**G. Walls and Fences.** Walls and fences should be designed to complement the architecture of adjacent buildings and should be designed in concert with the surrounding landscaping.

1. The maximum height of any perimeter project and property line wall should be 6 feet. Specialty walls such as screen walls, sound walls, and retaining walls should have a maximum height dependent on necessity and location.

2. Perimeter walls and fences should be architecturally enhanced, and use materials and colors that complement the architecture of adjacent buildings. Pilasters, planter boxes, trellises, material changes, planar changes or other treatments should be used to avoid long and monotonous expanses of wall.

3. Perimeter and property line walls should incorporate design techniques such as textures, staggered setbacks, and variation in height in conjunction with landscaping, to provide visual interest and to soften the wall's appearance.

4. Walls and fences should be designed in a style, material, and color to complement the adjacent buildings.



## Fence and Wall Designs

5. Walls should be constructed as low as possible, while still performing screening, noise attenuation, and security functions, with a maximum height of 6 FT, unless additional height is required for noise attenuation or site security.

6. Walls required for screening purposes should be constructed of nontransparent materials and incorporate standards to provide for wall inserts and/or decorative columns or pilasters to provide relief.

7. Perimeter walls and fences should be architecturally treated on both sides and incorporate landscaping whenever possible.

8. Walls on sloping terrain should be stepped to follow the terrain.



Landscaping Should Be Used in Conjunction with Fences and Walls to Soften the Appearance

9. Walls should be softened using plants that camouflage their hard edges (e.g., cap, base, and ends), such as vines cascading over the top of walls and base plantings. Planting mature tall trees in front or behind a wall can effectively reduce the apparent wall height, and shrubs and vines can be used to break up the expanse of the wall body.

10. Either no front yard walls or fencing, or the use of low (3 FT high) decorative masonry walls or fencing is preferred. Walls and fencing should be constructed of authentic materials (e.g., natural woods, common brick, stone, river rock, wrought iron slump block, split-face block, or other masonry approved by the Planning Director). However, vinyl and other manufactured fencing materials may be acceptable if the overall appearance appears natural. No wire or chainlink fencing, or unfinished precision masonry block should be used.

11. Whenever possible, homes adjacent to common open space areas should have wrought iron or tube steel grillwork and view fences to provide visual access to open space.

H. **Open Spaces.** Single-family residential development projects should be designed with open space and community facilities as integral parts of the project. Integrated open space and public facilities foster a sense of community and create a more livable environment. Open spaces, whether public or private, serve a variety of functions, should be centrally located, and are important places for residents to gather, socialize, and play. These areas should be safe and secure, and may provide area for small intimate meetings or larger neighborhood gatherings.

1. The size and scale of neighborhood amenities should be appropriately scaled.

2. Open space areas should be a prominent feature of a development project. Open space areas do not consist of the unusable landscaped areas between buildings.

3. Open space shall accommodate a variety of sitting areas, gathering areas, and active recreational areas.

4. Open spaces and community facilities should be visible from adjacent dwellings to help promote site safety.

5. Open spaces and community facilities should be easily accessible from all residential units within a development project.

6. Community features such as plazas, interactive water features, and community gardens should be included whenever possible.

7. Public art may be used to help create an identity and character for a neighborhood, and should be designed in context with the surrounding neighborhood and development.

8. Neighborhood open spaces may be used to promote connectivity by providing pedestrian and bicycle access to adjacent neighborhoods and open spaces, and other land uses where possible.

### D.01.005: Multiple-Family Residential Developments

### A. Site Planning.

### 1. <u>Building Orientation and Massing</u>.

a. Views, particularly of Mount San Antonio, Mount Baldy and the surrounding San Gabriel Mountains, existing mature trees, and any other natural amenities unique to the site should be preserved and incorporated into a multiple-family residential development project, whenever possible.

**b.** Clustering of multiple-family dwellings into larger buildings should be a consistent site-planning element. Large multiple-family development projects should be broken up into groups of buildings consisting of 4 to 8 dwelling units for low-medium density projects (up to 11.0 DU/Acre) and 12 to 16 dwelling units for medium density projects (up to 11.1 to 25.0 DU/Acre). High density residential projects (25.1 to 45.0 DU/Acre) should be massed in response to the scale of surrounding buildings, unless doing otherwise helps to achieve a specific neighborhood character desired for specific growth areas identified in the Policy Plan component of The Ontario Plan.

**c.** Buildings should be generally oriented to the street, with varying setbacks to provide visual interest and varying shadow patterns.

d. Developments should relate directly to the adjacent street, and present an attractive and interesting facade to the casual observer.

e. Buildings should be oriented to promote privacy to the greatest extent possible.

f. New development projects should respect existing development in the immediate area.

2. <u>Circulation</u>. Multiple-family residential development should have an efficient circulation network, connecting all modes of transportation to the project site.

a. Vehicular access onto a multiple-family project site should be through an entry drive aisle. Direct access to off-street parking spaces from a public street is not permitted.

b. All site entrances should be easily viewed from a public street and well lighted.

c. Vehicular and pedestrian site entries should incorporate enhanced pavement treatments, such as stamped concrete or interlocking pavers.

**d.** Unique accents, such as monuments, public art, ornamental features, enhanced paving, flowering accents, decorative walls, and specimen-sized trees should be used to generate visual interest at entries.

e. All main site entrances from public streets should have sidewalks on both sides, providing pedestrian access into the site from the public street.

f. All site entrances should be coordinated with existing or planned driveways and median openings.

**g.** Where possible, all multiple-family development projects should incorporate pedestrian connections to adjoining residential and commercial projects, and other compatible land uses.

**h.** Cross circulation between vehicles and pedestrians should be minimized. A continuous, clearly marked walkway should be provided from on-street and off-street parking areas, to the main entrances of buildings.

i. Walkways should be located to minimize the impact of pedestrians on the privacy of nearby residences or private open space. Additionally, walkways should not be constructed directly against a building or wall — landscaped planter areas should be provided between walkways and building facades or walls.

## 3. <u>Off-Street Parking</u>.

**a.** For low-medium and medium density projects, parking areas should be divided into a series of connected smaller parking courts. For high density projects, parking areas should be located within structure, utilizing a "podium" or "wrap" design.

**b.** For high density projects utilizing a parking structure, the structure shall be screened using architectural and landscape solutions. The method of screening should be compatible with the overall project architecture and landscaping themes. Visible parking structure elevations should be finished in the same style as the primary buildings, with compatible materials. This will help integrate the structure into the overall project design while reducing its visual impact.

c. Parking areas should be located within the development's interior, behind buildings, so as to be screened from street views. Parking lots located adjacent to the street, if necessary, may take-up no more than 20 percent of any linear street frontage, must be setback at least 20 FT behind the street property line, and must be screened from street views by a 3-FT high decorative masonry wall and dense landscaping. Carports and tuck-under parking should not be visible from a public street.

**d.** To the greatest extent possible, adverse visual impacts on the residential streetscape from parking areas, garages, and unarticulated garage doors and walls viewed through driveway openings along a project's street frontages, should be minimized.

e. Carports, detached garages, and accessory structures should be designed as an integral part of a project's architecture, and should be similar in material, color, and detail to the principal buildings of a development project.

f. Prefabricated metal carports that are unarticulated and void of architectural embellishment should not be used.

**g.** Parking courts should be treated as a highly visible public space, the character of which is clearly articulated by landscaping, lighting, building massing, and pedestrian and vehicular circulation.

h. Where garages are utilized, garage doors should be recessed a minimum of 6 inches, measured from the face of the garage, so as not to appear flush with the exterior wall. Furthermore, the large, flat planes created by garage doors should be articulated through the incorporation of decorative panels and/or windows.

**B. Storage.** Adequate private storage space should be provided for each multiple-family dwelling, which is accessible from within the dwelling or associated parking facility. Residential storage is not allowed on balconies, patios, or porches, or any other areas that are visible from public or private streets, alleyways, or exterior areas of neighboring properties. As such, Usable storage space should be provided in addition to necessary utility areas.

**C. Building Design.** These guidelines seek to promote high quality architectural designs that enhance the higher density residential areas of the City. New developments should utilize architectural styles that complement one another and existing development.

1. <u>Architectural Style</u>. For the purpose of these guidelines, "architectural style" classifies architecture in terms of form, techniques, materials, period, and region.

a. While there is no required architectural style for multiple-family residential projects, the use of styles common to the region, such as Art Deco, Art/Streamline Moderne, Craftsman, Colonial Revival, French Provincial Revival, Mediterranean Revival, Mission Revival, Monterey, Prairie, and Spanish



Colonial Revival, are encouraged. The primary focus should be on constructing a high-quality residential environment.

**b.** The incorporation of architectural elements that add visual interest, scale, and character to the neighborhood, such as bays, bay windows, recessed or projecting balconies, verandas, balconies, porches, and other architectural elements, are encouraged.

- 2. <u>Building Form and Articulation</u>.
  - a. Low-Medium and Medium Density Projects.

(1) Building heights should be varied to give the appearance of a collection of smaller structures. Additionally, upper stories should be stepped back to reduce the

scale of facades that face the street, common space, drive aisles through the project, and adjacent residential structures.

(2) For buildings containing 3 or more attached dwellings in a row, each dwelling unit should have at least one horizontal projection of at least 2 FT, measured from the primary wall plane, which is not less than 8 feet wide. Projections should extend the full height of single-story buildings, at least one-half the height of 2-story buildings, and two-thirds the height of a 3-story building. In addition, a horizontal change in wall plane of at least 3 FT, for a minimum vertical distance of 12 FT, should be provided for every 2 units.

(3) The perceived height and bulk of multi-story buildings should be reduced by dividing the building mass into smaller scale components, and adding projecting architectural details, such as eaves, dormers, and balconies. The use of awnings, moldings, pilasters, and comparable architectural embellishments are also encouraged.

b. High Density Projects.

(1) A variety of stacked massing arrangements should be used to create visual interest.

(2) The mass of a building should step down at the corners and entries to provide a greater definition of the building.

(3) A minimum of 15 percent of the horizontal length of any building elevation should be articulated by varying the form or footprint, and/or by introducing architectural elements and/or horizontal projections of at least 2 FT, measured from the primary wall plane.

(4) Major building entries should be clearly discernible through the incorporation of architectural elements such as porches, arcades, ornamental lighting, landscaping, and other embellishments.

c. All Projects, Regardless of Density.

(1) All building elevations should be considered in the evaluation of any new construction, additions, or alterations.

(2) Side and rear views of a building should not be minimized because of their orientation away from the public right-of-way. The same or compatible design features should be continued or repeated on all elevations of a building, providing full, 360-degree architecture.

(3) Arcades, colonnades, and other types of overhead structures should be used to provide human scale to the interface between the façade and sidewalk.

(4) Building facades that enclose stairwells should include windows to reduce the visual bulk of the stairwell and enhance safety. Building facades enclosing elevator shafts should use architectural treatments to reduce visual mass.

(5) All mechanical equipment, whether mounted on the roof or the ground, should either be suitably screened or placed in locations that will not be viewed by the
general public, project residents, or occupants of neighboring properties. All screening devices must be compatible with the architecture and color of the adjacent buildings.

3. <u>Entryways</u>.

a. Courtyard doors or gates used at building entries should be attractively designed as an important architectural feature of the building or complex.

**b.** Strongly delineate the separation between public and private space with special paving, changes in building materials, grade separations, or with physical barriers, such as landscaping, fences, walls, screens, or building enclosures.

c. For low-medium and medium density projects, each dwelling unit entry should be emphasized and differentiated utilizing architectural elements, such as porches, stoops, roof canopies, and detailing.

d. Opportunities should be provided for residents to personalize their entry by providing a ground-level private area on low-medium and medium density projects, or for high density projects, increase the entry corridor width at dwelling entries to allow for the placement of potted plants.

#### 4. <u>Exterior Stairways</u>.

a. Exterior (unenclosed) stairwells should not be used on buildings greater than 2 stories in height. Not more than 4 second-floor dwelling units should be served by a single flight of exterior stairs. Where appropriate for the architectural style, the stairway design should be open to allow views for natural surveillance.

**b.** Stairways should be constructed of durable material that is compatible with the design of the primary structure.

c. Prefabricated metal stairs are strongly discouraged but may be considered on a case-by-case basis.

5. <u>Building Materials and Finishes</u>.

**a.** A project's dwelling units, recreation and open space amenities, and parking facilities should be unified through the consistent use of building materials, textures, and colors. Exterior columns or supports for site elements, such as trellises and porches, should utilize materials and colors that are compatible with the project, as a whole.

**b.** Building materials should be durable, require low maintenance, and relate a sense of quality and permanence. Frequent changes in materials should be avoided.

c. Inappropriate materials for exterior applications include plastic and plastic laminate; flat asphalt shingles; corrugated fiberglass, metal or plastic; unrealistic imitation rock veneers; highly reflective materials; unfinished concrete; and unfinished metal and alloy products.

6. <u>Roofs</u>.

a. Roofs should clearly reflect a residential appearance. Rooflines should be articulated through the use of stepped and segmented roof sections, and the incorporation of

towers or other vertical elements to achieve varying roof heights, provide visual interest, and accent a predominant horizontal massing.

**b.** Full hipped or gabled roofs covering the entire building are preferred over mansard roofs and segments of pitched roofs applied at the building's edge.

c. Garage and carport roofs visible from buildings or streets should incorporate pitched roofs and roof materials matching adjacent buildings. Flat garage and carport roofs should not be used.

7. <u>Color and Materials</u>.

a. Color is an important element in establishing a structure's character and architectural style. The predominant color of the building and accessory structures shall be a muted, non-garish tone.

**b.** Color may be used as an important accent in a project's appearance. More than one predominant paint color is encouraged. Compatible accent colors should be used to enhance important architectural elements and details.

c. Bright or intense colors should be used very sparingly, and should typically be reserved for more refined or delicate detail work.

**d.** Employ high quality materials that are durable, long lasting, and aesthetically appealing.

e. Materials such as brick and stone should be left in their natural colors.

f. The use of complementary colors and changes in materials can add visual interest to a building; however, to avoid a false appearance, texture or color changes should not occur at external corners.

**D. Mechanical Equipment.** Mechanical equipment should be integrated as part of a project's site and building design. The following conditions apply to mechanical equipment:

1. Rooftop and ground-mounted equipment should be screened from view of elevated highways, streets, parking lots, connecting walkways and freeways.

2. Roof-top equipment (including satellite dishes) should be integrated into the overall mass of a building by screening it behind parapets or by recessing equipment into hips, gables, parapets or similar features; plain boxes are not acceptable.

**3.** Screening details should incorporate capping elements and the same



exterior trim details as found elsewhere in the project.

4. The top of screens should be at least as high as the top of the equipment, yet the screen walls shall be generally kept as low as possible. Cross-section drawings shall be prepared to illustrate the method in which the equipment will be screened from view of adjacent streets, freeways and properties.

5. Transformers, heating units and other ground-mounted equipment should be adequately screened with walls and landscaping. Design these features to be graffiti and vandal-resistant by providing a 2-FT landscape strip at the base of these walls for tall shrubs, and by using materials that are easily cleaned or painted. Additional area for future ground-mounted equipment and screening needs should be considered and set aside. Avoid interrupting connecting walkways with these features.

6. Antennas should be placed in attics or building interiors. New units should be prewired to accommodate cable reception. Satellite dish antennas should be ground mounted and screened from public view on all sides with a combination of walls, landscaping or buildings.

**E. Site Lighting.** The form and quality of on-site lighting should establish an attractive, distinctive, and safe nighttime environment. Furthermore, lighting should not create an unwanted nuisance for neighboring residential areas, or for other sensitive uses.

1. Site lighting intensities must conform to the minimums established by the City's security standards contained in OMC Title 4 (Public Safety), Chapter 11 (Security Standards for Buildings), commencing with Section 4-11.01.

2. Lighting within parking areas should be arranged to provide safety and security for residents and visitors, but prevent direct glare of illumination onto adjacent dwellings and neighboring properties.

3. Pedestrian-scaled lighting should be located along all pedestrian routes of travel. Pedestrian pathways should be lighted by pole or bollard-type fixtures, not to exceed 12 FT or 3 FT, respectively.

**F.** Landscaping. Landscaping for multiple-family development projects can be used to define and accent specific areas (e.g., building entrances, parking lots, etc.), define the edges of various land uses, provide a transition between neighboring properties (buffering), and screen storage areas. Landscaping may be used as a unifying element within a project and with surrounding projects.

1. Landscaped areas shall generally incorporate plantings utilizing a layered, 3-tier design consisting of: [i] grasses and ground covers, [ii] shrubs and vines, and [iii] trees.

2. New landscaping shall complement existing landscape materials, location, and massing on adjacent established developments where appropriate.

3. The following planting design concepts are encouraged within each project:

**a.** Specimen trees in informal groupings throughout the site, or formal groupings at major focal points;

**b.** Use of plantings to create shadow and pattern against walls;

c. Use of planting to soften building lines and emphasize the positive features of the site;

d. Use of flowering vines on walls, arbors, or trellises;

e. Trees to create canopy and shade, especially in parking areas and passive open space areas; and

f. Berms, plantings, and walls to screen parking lots, trash enclosures, storage areas, and utility boxes.

4. Landscaping shall be protected from vehicular and pedestrian encroachment by raised planting surfaces and the use of curbs.

5. Concrete step areas shall be provided in landscape planters adjacent to parking spaces.

6. Vines and climbing plants on powder coated metal trellises and perimeter walls are encouraged.

7. Gravel, bark, decomposed granite, artificial turf, and other similar materials are not allowed as a substitute for plant materials.

8. Landscaping shall emphasize water efficient plants.

**9.** Vehicular entries provide a good opportunity to introduce and identify multiplefamily projects. Vehicular entry areas should be treated with special landscape elements that will help establish an individual identity to the project (e.g., special paving, graphic signage, specialty lighting, specimen trees, flowering plants, etc.).

**G. Walls and Fences.** Walls and fences may be used to provide security and privacy, or screen unsightly views, and may be utilized with landscaping to enhance and/or buffer the appearance of development. The following guidelines apply to walls and fences used in multiple-family residential development projects.

1. The maximum height of perimeter project and property line wall should be 6 feet. Specialty walls such as screen walls, sound walls, and retaining walls should have a maximum height dependent on necessity and location.

2. The design of walls and fences, as well as the materials used, must be consistent with the development's overall architectural theme. Fence and wall color should be compatible with the development and adjacent properties. Paint color used on fences should be common colors readily purchased and kept readily available on the development's premises.

3. Perimeter walls and fences should be architecturally enhanced, and use materials and colors that complement the architecture of adjacent buildings. Pilasters, planter boxes, trellises, material changes, planar changes or other treatments should be used to avoid long and monotonous expanses of wall.

4. Perimeter walls and fences should be architecturally treated on both the interior and exterior sides of the wall.

5. Walls on sloping terrain should be stepped to follow the terrain.

6. Walls should be softened using plants that camouflage their hard edges (e.g., cap, base, and ends), such as vines cascading over the top of walls and base plantings. Planting mature tall trees in front or behind a wall can effectively reduce the apparent wall height, and shrubs and vines can be used to break up the expanse of the wall body.

7. Visually penetrable materials (e.g., decorative wrought iron or tubular steel) should be used in areas of high activity, such as pool and playground areas, and areas adjacent to street frontages.

8. Wall and fence designs, and the selection of materials, shall consider maintenance issues, especially graffiti removal and long-term maintenance. Decorative capstones are required on walls to help prevent water damage from rainfall and moisture, and provide a finished appearance.

**9.** Perimeter walls and fences should incorporate textural changes, staggered setbacks, and variations in height, in conjunction with landscaping, to provide visual interest and to soften the wall's appearance.

**10.** The height of screen walls and sound walls is determined by site features and location, such as proximity to noise generators and privacy issues.

11. The proportion, scale, and form of the walls should be consistent with the design of adjacent buildings.

12. The colors, materials and appearance of walls and fences should complement the architecture of adjacent buildings. Fencing located where screening is not specifically required should be of decorative iron or tube steel.

**H. Open Spaces.** Multiple-family development projects should provide its residents access to useable open space and recreation amenities, such as gardens, courtyards, natural areas, and active recreation areas.

1. Outdoor seating, tables with umbrellas, water features, landscaping, gazebos, or other place-making features are encouraged within open space areas, and should be consistent with the architectural style of the project. Open space features should cater to anticipated residents (e.g., play lots for children, seating areas for the elderly, etc.).

2. All support buildings within multiple-family residential projects (e.g., laundry facilities, recreation buildings, sales/lease offices, etc.) should be compatible in architectural design with the balance of the project.

3. Open space areas should be sheltered from the noise generated by traffic on adjacent streets, or other incompatible land uses.

4. Buildings should be oriented to create courtyards and open space areas; thus, increasing the aesthetic appeal. Community features, such as plazas, interactive water features, and community gardens, should be included whenever possible.

5. Common open space areas and recreation amenities should be conveniently located for the majority of units, and should be linked to streets via connecting walkways at least 12 FT in width.

6. Open space should be designed to integrate buildings and other structures.

a. At least 75 percent of common open space areas should be bordered by building walls with windows, architectural elements such as low walls or trellises, landscape features such as hedges or rows of trees, or by some combination of these elements.

**b.** Common open spaces bordered by a parking lot or driveway should be minimized or discouraged. If a parking lot or driveway must border an open space area, the portion of parking lot or driveway adjacent to the open space should be of decorative pavers, or the parking lot or driveway should be screened by a 3-FT high decorative wall.

7. Open space areas should take advantage of prevailing breezes and orientation of the sun to provide natural lighting and ventilation.

8. Common open space areas and recreation amenities should be screened from public view and located contiguous to the units they serve.

9. Children's play areas should be visible from as many dwelling units as possible.

10. In large developments, separate, but not necessarily segregated, play areas and informal outdoor spaces should be provided for differing age groups for reasons of safety. Small developments may combine play areas, such as tot lots joined with a larger activity area for older children.

11. Mailboxes should be located in highly visible and heavily use areas to promote safety and convenience, and casual social interaction.

I. **Pathways.** Connecting pedestrian pathways providing a convenient pedestrian route between all entries and the street should be provided.

1. Walkways and trails should be between 5 FT and 8 FT in width, accompanied by a landscaped strip at least 4 FT in width.

2. Walkways should consist of decorative pavers, or scored or stamped concrete. Trails should be of a permeable, easy to maintain material, such as compacted decomposed granite.

**3.** Where a walkway is oversized to accommodate occasional emergency vehicles, landscaping, Grasscrete or turf-block, and other materials should be used to accommodate traveling widths that exceed 8 FT.

# Reference E: Commercial Design Guidelines

Sections:

<u>E.01.001</u> :	Purpose
<u>E.01.002</u> :	Applicability
<u>E.01.003</u> :	Open Space and Landscaping
<u>E.01.004</u> :	Site Design
<u>E.01.005</u> :	Building Design
E.01.006:	Architectural Details

#### E.01.001: Purpose

These Commercial Design Guidelines are intended as a reference to assist the designer in understanding the City's goals and objectives for commercial development, and to:

**A.** Encourage office and commercial development that is convenient and attractive, and enhances surrounding neighborhoods, the downtown area and the City as a whole;

**B.** Provide for both convenient motor vehicle access and safe pedestrian access, recognizing that some commercial-bound trips may be on foot for some uses; and

**C.** Compliment the mandatory commercial development regulations established by Development Code Section 6.01.015 (Commercial Zoning Districts) by providing examples of potential design solutions, and by providing design interpretations of the various mandatory regulations.

#### E.01.002: Applicability

A. The Commercial Design Guidelines are general and may be interpreted with some flexibility in their application to specific projects. Variations may be considered for projects with special design characteristics during the City's development review process to encourage the highest level of design quality while at the same time providing the flexibility necessary to encourage creativity on the part of project designers. Nonetheless, unless there are compelling reasons or practical difficulties, these guidelines shall be observed.

**B.** Determinations of compliance with the Commercial Design Guidelines shall be made by the Approving Authority.

**C.** These Commercial Design Guidelines are authorized by Subsection F of Development Code Section 6.01.015, and are enforceable in the same manner, and to the same extent, as any other applicable requirement of the Ontario Development Code.

# E.01.003: Open Space and Landscaping

#### A. Site Accessories.

1. Site design features, such as recycling bins, bike racks, litter cans, planters, benches and transit shelters, should be attractive.

2. Materials should and have an architectural character consistent with the overall project.

3. Design features should be graffiti and vandal resistant by using materials that are easily cleaned or painted.

**B. Connecting Walkways.** Walkways should connect major building entries with the public sidewalk along the street.

1. Where possible, connecting walkways should follow an alignment that connects building entries, and should be at least 8 FT in width.

2. Where connecting walkways pass through parking lots, they should be at least 5 FT in width (excluding car overhangs), and should be accompanied by a minimum 5-FT wide landscape buffer, with trees planted at least every 30 FT oncenter. Walkways should consist of special pavers or scored concrete, with modules that should not exceed 3 FT in width.



3. Where a walkway is oversized to accommodate occasional emergency vehicles, landscaping, Grasscrete, and other similar features, should be used to give the walkway a more appropriate scale.

4. Pedestrian walkways should avoid excessively meandering alignments.

## C. Off-Site Connections.

1. Where complementary land uses are close (e.g., residential & employment), and conditions make it feasible, vehicular connections and pedestrian paths to neighborhood-serving retail are encouraged.

2. Pedestrian paths should be well lighted and have entries or windows facing them. For additional security, they may be gated at certain hours, and designed to accommodate emergency vehicles (while discouraging other vehicles).

D. Plazas. Plazas are encouraged as a site amenity and design detail.

1. Retail centers over 10,000 SF in area should provide at least one SF of plaza area for each 100 SF of GFA, and Employment uses with more than 20 employees should provide at least 10 SF of outdoor plaza area for each employee. The area of a plaza should be calculated separately from areas devoted to connecting walkways.

2. Plazas should be at least 10 FT in width and include decorative paving. If accompanied by a building entry, plazas may occur within front or street side setback areas; however, trellises and other structures are not allowed in the setback areas.

3. Outdoor seating, tables and umbrellas, water features, landscaping, gazebos, or other "making" features are encouraged in plazas and should be consistent with the architectural style of the project. Shaded areas should be provided.

4. Plazas are encouraged where high-levels of pedestrian-activity are expected, such as adjacent to major entrances and food services (e.g., bakeries, delis, and restaurants).



5. Building entries and windows should look onto plazas to enhance activity and security.

**E. Views.** Scenic views can enhance the design of a space. Site circulation and plazas can be used to draw attention to distinctive features (e.g., entrances, fountains, plantings, the San Gabriel Mountains, etc.).

**F.** Landscaping. Landscaped areas should include a mixture of evergreen and deciduous trees, shrubs, vines and groundcover to provide year-round interest.

1. Use evergreen trees to block winter winds and screen unsightly features.

2. Provide special landscaping treatment, such as intensifying density (size and/or number) of trees, accent trees, and decorative paving at pedestrian and motor vehicle site entries, and building entries.



3. Provide shade/canopy trees within parking areas.

4. Use plants to define outdoor spaces such as edges, outdoor plazas, or movement paths between parking and building entrances.

5. Plant trees to provide a continuity of form throughout the project.

6. Provide a minimum 5-FT wide landscaped planter adjacent to buildings, walls, and fences.

#### G. Refuse Enclosures and Equipment.

1. Refuse enclosures and equipment should be integrated into the design of a project, and should be easily accessible by service vehicles.

2. Locate refuse enclosures and equipment within a building's facade or within a screened enclosure.

3. The design of refuse enclosures should reflect the architectural style of adjacent buildings, and should incorporate similar high quality materials. Landscaping or trelliswork is encouraged where screened enclosures are visible from a street or connecting walkway, and must be permanently maintained.



H. Outdoor Storage Areas. Outdoor storage areas should be incorporated into the design of a project to avoid adverse visual impacts to the site.

1. Locate outdoor storage areas away from the street, behind or to the side of buildings.

2. Materials stored outdoors must be screened from public view by a decorative masonry block wall.

I. Transit Shelters. Transit shelters should be incorporated into the design of commercial project.

1. Where a transit stop is planned adjacent to a project that is at least 5 acres, the developer should coordinate with the transit district to determine a location for an on-site transit shelter.

2. Transit shelters that are incorporated within the form of a building (e.g., under an awning or arcade) are encouraged. For freestanding shelters, the developer should explore with the transit agency and the City, possibilities for a structure that is integrated architecturally with the project through its color, materials, and architectural style.



J. Driveways and Sidewalks. Driveways should be designed to minimize impacts to pedestrians.

1. Minimize pedestrian crossing distances at driveways.

2. Ideally, a raised median should be used to separate ingress and egress lanes, and to provide a pedestrian island, especially where there are 3 or more lanes.

**3.** Pedestrian crossings should be defined through the use of decorative pavers, scored concrete, or equivalent treatments.



## E.01.004: Site Design

A. Basic Orientation. Generally, commercial development should front onto public streets, incorporating building entries, windows (including display windows), and landscaping, except under the following circumstances:

1. Where parking lots and driveways front the street and conform with guidelines contained within "street frontage and parking lots";

2. Where the use is auto-serving or service commercial, and conforms with specific exceptions; or

3. Where the use occurs within CS zoning district, pre-existing loading and drop-off areas in the front of a building should be allowed.



**B. Entry Locations.** All primary entries should face onto a street or a connecting walkway.

1. Entries that do not front directly onto a street should be connected to a street and the surrounding neighborhood via a landscaped connecting walkway.

2. Street side entrances to stores with large floor areas (exceeding 10,000 SF) are often difficult to achieve. Pedestrian access to these stores can be enhanced by:

a. Providing an entry at or near the street, which may be in addition to an entry relating directly to parking;

b. Locating small shops along connecting walkways linking anchor stores to the street;

c. Placing outdoor retail areas along the street (e.g., garden centers and outdoor seating for anchor store delis); or

**d.** Constructing landscaped connecting walkways through parking lots to provide a direct connection to the street.

**C. Street Frontage and Buildings.** Where a building fronts onto a street, 50 percent of the building's linear street side frontage should consist of an entrance, window, or display window.

1. Street side buildings should not be more than 100 FT long, without a pedestrian plaza or walkway connecting the parking lot with the street.

2. On corner lots, buildings should mark the corner with added height, major entry, or other notable architectural feature(s).



3. Auto-serving and service commercial uses permitted in the CN and CC

zoning districts need not conform to the above-listed street frontage requirements.

**D.** Street Side Setbacks and Buildings. Where a front or street side setback is required, buildings that front onto the street should meet one of the following conditions:

1. The setback should be landscaped with dense, permanently maintained vegetation, reaching a height of at least 1.5 FT, except where walkways lead to building entries; or

2. The setback area may be paved with decorative pavers or scored concrete (3 FT by 3 FT maximum module size) if building entries occur at least every 25 FT, or a continuous arcade or trellis is provided.

**E.** Street Frontage and Parking Lots. Parking lots should generally be placed away from the street, preferably to the rear or interior side of buildings.

1. In no case should street frontages consist of uninterrupted parking lots. Where parking lots occur along street frontages, a landscaped buffer should be provided to minimize views of parked cars from the street.

2. Within landscaped buffers, trees should be planted at a minimum spacing of 30 FT on center, within 5 FT of the street property line. In addition, the landscape buffer should include a decorative screening feature that is 2.5 FT to 3 FT in height, such as a combination of walls and hedges.

F. Facades Facing Parking Lots. Facades facing parking lots should be designed as a building focal point.

1. Where buildings face the street with parking behind, the facade facing the parking lot should contain at least three of the following features:

- a. Upper-story uses with windows overlooking the parking lot;
- **b.** Secondary entrances to ground-floor or upper-story uses;

c. Windows (including display windows) occupying at least 60 percent of the building's length, with at least 50 percent of the window being transparent;

d. A minimum 4-FT horizontal change in the building plane for each 50 FT in building plane length;

- e. A trellis or arcade that is at least 5 FT deep (clear and unobstructed); or
- f. A 5-FT wide landscaped strip containing trees, shrubs, and ground cover.

#### G. Infill within Existing Development.

1. Within existing projects, new buildings are encouraged to reinforce streets as walkable, civic environments, and to establish pleasant and convenient pedestrian pathways between streets and existing storefronts.

2. The architectural style of new buildings should complement the existing center or be the basis for future remodeling for the existing center.

H. Auto-Serving and Service Commercial Uses. Entries and windows for auto-serving and service commercial uses need not front onto streets; however, entries should be linked to the street via a connecting walkway.

1. Avoid facing auto service bays, loading areas, and blank walls toward the street; orient these features to the side or rear, while presenting windows, entries and landscaping to the street. Trees and other landscaping should be used to further screen these features when viewed from the street.

2. When possible, place auto-serving and service commercial near the street, including gas stations, auto service establishments, or other buildings with a floor area under 10,000 SF, or a lot coverage under 25 percent, whichever is less. At least 25 percent of the linear street frontage should contain windows, excluding clerestory and glass block, to enhance the street's security and appearance.



**3.** Fast food restaurant building entrances should face the street with parking located to the side and rear of the building. Where the size of a parcel may be constraining, one bay of parking may be allowed in front.

# I. Fence and Wall Design.

1. Fences and walls should be built with attractive, durable materials, including, but not limited to, wrought iron, decorative masonry block, or tilt-up concrete. The use of chainlink fencing, corrugated metal fencing, and tennis court screening material, is not permitted. Fences or walls should be consistent with materials and designs used throughout the project.

2. All fences and walls should have a distinctive cap of varying width, material, or texture, within the top 8 inches. Walls should not exceed a height of 6 FT without being made of textured concrete block, interlocking "diamond" blocks, tilt-up or poured-in-place concrete, or other similar materials.

**3.** At the street, avoid long expanses of uninterrupted fences and walls. Use an opening, planter box, material change, pilaster or post, or a 3-FT horizontal change every 50 to 75 FT in length.

4. Provide an opening in fences and walls to connect walkways directly to the street, and avoid circuitous routes for pedestrians. Pedestrian gateways should be announced by pilasters, trellis, special landscaping, or other special features.

J. Fences and Walls Adjacent to Residences. Where a side or rear property line of a commercial site is common with a residential zoning district, an 8-FT high decorative masonry block wall is required to be constructed at the common property line.

**K. Exterior Site Lighting.** Exterior lighting standards should be located and designed to minimize direct glare beyond the parking lot or service area.

1. On-site light standards under 15 FT in height (including lighting bollards) should illuminate street adjacent sidewalks and connecting walkways, and are encouraged throughout a project. Taller standards, while generally discouraged, may be used only if:





a. Reflectors direct light only toward the center of parking areas and at least 60 FT from a residential property; and

**b.** Trees are planted along streets and property lines at a spacing of not more than 30 FT on center.

2. All lighting poles and fixtures should be consistent with the overall architectural style of the project. At a minimum, all light poles should have an attractive base and top. The use of "cobrahead" standards are not permitted.

3. Buildings and landscaping can be illuminated indirectly to create a strong positive image. Concealing light features within buildings and landscaping can highlight attractive features and avoid intrusion into neighboring properties. Thoughtful use of lighting is especially encouraged at entries, plazas, and other areas where evening activity is expected.

## E.01.005: Building Design

A. Entry Design. Gables, awnings, sign locations or other features should clearly express the location of doorways. Greater attention should be given to materials and detailing adjacent to entries.

**B.** Arcades and Awnings. Outdoor arcades are encouraged to protect pedestrians from summer heat and winter rain.

1. Where an arcade is not provided, a separate awning or other architectural feature should be used for each business, to enhance the individual identity of small shops.



2. Because they can quickly deteriorate, the use of canvas awnings is discouraged, unless regularly maintained.

C. Form and Massing. The mass and form of building roofs should be varied, especially with larger projects.

1. Varying building heights may be used to communicate different uses or shops.

2. Bay windows and stepped buildings also create added visual interest and relate directly to the pedestrian environment.

**3.** Furthermore, an arcade may be used to connect varied masses, and provide a more comfortable experience along pedestrian routes.

4. The use of tower elements and other similar features are encouraged at focal points,



such as plazas, major entrances, or where walkways meet streets.

**D. Upper-Story Uses.** Upper-story uses with bay windows and balconies are encouraged to provide informal surveillance, and create a pleasant sense of enclosure, especially around plazas and along streets.

1. Lobbies for upper-story should be clearly expressed through the use of gables, awnings, special materials, or other architectural treatments.

2. The use of bay windows and balconies are encouraged, and should not appear to be cantilevered for more than 6 inches, without the incorporation of visible blocking, brackets, corbels, etc.

E. Roof Forms. Roof forms should be simple, and reflect the internal organization of buildings.

1. The use of hip and gable roofs are encouraged.

2. Flat roofs with parapets should be accompanied by a built-up or recessed cornice, or other shadow-creating detail at the top of the parapet.

F. Gateway Facades. Facades visible from freeways, Mission Boulevard, Euclid Avenue, and passenger rail connections, should be especially attractive.

1. Facades should include a major entry feature, along with fenestration over at least 30 percent of the facade's exterior surface.

2. A monolithic appearance should be avoided through application of the design guidelines noted previously.

**G. Hotels and Motels.** The facades of hotels and motels should include bay windows, balconies, arcades, towers, and other projections, to avoid a monotonous appearance and an overly horizontal composition.



1. Roofs should be of hip or gable design, and the use of tile roofs are encouraged.

2. The use of roof dormers are encouraged and should be coordinated with the rhythm of fenestration and bays

H. Drive-Up Windows. Provide roofs or overhead trellises at drive-up windows.

1. Posts supporting roofs or trellises should be substantial in appearance. These features should be integrated into the overall architectural design of the project, and should not appear as an afterthought.

2. The stacking area for drive-up windows should be screened from the street through a combination of low decorative masonry walls and landscaping.

I. Screening Equipment. Mechanical equipment should be integrated into the project site and building design, and should not appear as an afterthought.

1. Roof-top and ground-mounted equipment should be screened from view of elevated highways, streets, parking lots, connecting walkways and freeways.

2. Mechanical equipment can be screened behind parapets, or by recessing equipment into hip, gable, parapet, or similar roof features. The use of plain box structures are not acceptable.

3. Screening details should incorporate decorative cap elements, and the same exterior trim details as found elsewhere in the project.



4. The top of screens should be at least as high as the top of the equipment being screened; however, the screen walls should be generally kept as low as possible. If freeways or other public ways have an elevation that is equal to or above the elevation of equipment, a section should be prepared which shows the relationship of the equipment to the public way and the manner in which this view will be screened.

5. Transformers, heating units, and other ground-mounted equipment, should be adequately screened with walls and/or landscaping. These features should be designed to be graffiti- and vandal-resistant by providing a 2-FT wide landscape strip at the base of walls, to accommodate the planting of dense shrubs, and by using materials that are easily cleaned or painted. Additionally, area for future ground-mounted equipment and screening needs should be considered, and set aside if needed.

J. Loading and Storage Areas. Loading docks, overhead doors, and storage areas, should not face streets and freeways, and should preferably be located behind or to the side of buildings.

1. Where oblique views are possible from streets, freeways, connecting walkways, or residences, the loading docks, overhead doors, and storage areas, should be screened through the use of walls, decorative metal trellises, and tall landscaping or equivalent features.

2. Loading docks and storage areas should not conflict with connecting walkways.

**3.** If located adjacent to residential areas, the design of overhead doors should minimize noise through devises such as dock seals and/or other dampening features.

4. Locate fixed hardware for rolling doors on the inside of buildings to minimize visual clutter caused by door hardware.

5. Fences or walls, in combination with landscaping, should be used to screen outdoor storage and loading areas that may be visible from freeways or passenger rail connections.

## E.01.006: Architectural Details

**A. Architectural Styles.** Construction should render any chosen style well through appropriate detailing, properly applied materials, and quality workmanship.

1. A consistent architectural style should be used for a building and the elements that relate to it, such as trellises, planters, light-standards, etc. Multiple building projects should also use a consistent architectural style. While specific architectural styles are not dictated by the Development Code, several styles predominate in Ontario and should be emulated to help keep Ontario's unique "sense of place".

2. These styles generally respond to the region's climate. Shade windows, outdoor circulation, and outdoor courtyard or plazas with deep eaves, recessed window frames, awnings, arcades, loggias, trellises, and trees. Predominant styles include Mediterranean Revival. "High tech" styles with unarticulated surfaces and insubstantial materials should be avoided.

**B. Blank Walls.** Building facades should not be monotonous or have a flat, shadowless appearance on any side.

1. No wall should have a blank, uninterrupted length exceeding 20 FT without including one of the following:

a. Change in texture;

**b.** Vertical and Horizontal changes in plane of at least 2 FT;

c. Windows (excluding clerestory windows and glass block;

- d. Decorative trellis work; or
- e. Tree or equivalent element.

2. Facades that are visible from adjacent streets or walkways should display even greater visual interest by using architectural elements that break up the massing of large buildings, such as windows, arcades, porticos, and other architectural features.

**C. Base and Top Treatments.** All facades should have a recognizable "base" and "top".

1. <u>Base</u>. The base should visually carry the weight of the building. A recommended rule of thumb is approximately one-eighth of a building's height, unless associated with window stem walls where it may be as little as 18 inches tall. Techniques for establishing a base



include (but are not limited to): (a) thicker walls, (b) richly textured materials (e.g., tile or masonry treatments), (c) darker colored materials, mullion, and/or panels, and/or (d) enriched landscaping with a mature height of at least 18" and permanently maintained. Special materials, such as ceramic tile, granite and marble, are encouraged on the base of buildings that face streets or connecting walkways, especially adjacent to major entries.

2. <u>Tops</u>. The top takes advantage of the visual prominence of a building's silhouette and should be approximately one-twentieth of a building's height, or 12 inches, whichever is greater. Techniques for clearly expressing a top include (but are not limited to): (a) cornice treatments, (b) roof overhangs with brackets, (c) stepped parapets, (d) richly textured materials (e.g., tile or masonry treatments), and/or (e) differently colored materials. Colored "stripes" are not acceptable as the only treatment.

**D. Quality of Construction.** Give an attractive appearance to all facades through careful and correct detailing, especially at the base of buildings, along cornices, eaves, parapets or ridge tops, and around entries and windows. Appearance may also be enhanced through the correct use of materials, expansion joints, and reveals.

**E. Exterior Materials.** The use of high quality building materials are encouraged. Recommended materials include stucco, exterior plaster, wood siding, tile, and natural stone or river rock. The use of veneers having an artificial appearance are not recommended. Materials and detailing should have a natural, substantial, and long-lasting appearance.

F. Material Changes. To avoid the false appearance of lightweight veneers, material changes should not occur at external corners. Material changes should occur at interior corners, or as a "return," extending at least 2 feet past an external.

**G. Roof Materials.** Roof materials should be durable and display frequent, clearly marked, shadow lines. Generally acceptable roof materials include metal standing seam, concrete tile, ceramic tile, and slate or slate-like materials, and architectural grade composition shingles (<u>Note</u>: Only tile roofs should be used within the



Euclid Avenue Overlay District). Roof materials that are not acceptable include combustible or nonfire-rated materials, roll roofing, and lightweight asphalt shingles.

**H. Colors.** For larger building surfaces (excluding trim), colors should be muted and lighter in value. Muted colors contain a mix of complementary colors that result in off-whites, tans, and other "softer colors". Lighter colors have a value equivalent to 30% or less on a grey scale. Accent colors may include brighter and darker colors.

I. Windows. To provide a base element and greater safety, window frames should generally be set on a stem wall or framed panel that is at least 18 inches high. Additionally, window frames should be substantial and should be framed or inset to establish an attractive shadow, which is flush with the exterior finish. Glazing should be inset at least 2 inches from the front face of the exterior finish.

J. **Downspouts.** Downspouts should be concealed on facades that face a street or freeway.

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# Reference F: Industrial Design Guidelines

Sections:

<u>F.01.001</u> :	Purpose
<u>F.01.002</u> :	Applicability
F.01.003:	Open Space and Landscaping
<u>F.01.004</u> :	Transit Facilities
F.01.005:	Site Design
F.01.006:	Building Design
F.01.007:	Architectural Treatments

#### F.01.001: Purpose

These Commercial Design Guidelines are intended as a reference to assist the designer in understanding the City's goals and objectives for commercial development, and to:

A. Encourage office and commercial development that is convenient and attractive, and enhances surrounding neighborhoods, the downtown area and the City as a whole;

**B.** Provide for both convenient motor vehicle access and safe pedestrian access, recognizing that some commercial-bound trips may be on foot for some uses; and

**C.** Compliment the mandatory commercial development regulations established by Development Code Section 6.01.025 (Industrial Zoning Districts), by providing examples of potential design solutions, and by providing design interpretations of the various mandatory regulations.

#### F.01.002: Applicability

A. The industrial design guidelines are general and may be interpreted with some flexibility in their application to specific projects. Variations may be considered for projects with special design characteristics during the City's development review process, to encourage the highest level of design quality, while at the same time providing the flexibility necessary to encourage creativity on the part of project designers. Nonetheless, unless there are compelling reasons or practical difficulties, these guidelines shall be observed.

**B.** Determinations of compliance with the industrial design guidelines shall be made by the Approving Authority.

**C.** These Industrial Design Guidelines are authorized by Subsection F of Development Code Section 6.01.025, and are enforceable in the same manner, and to the same extent, as any other applicable requirement of the Ontario Development Code.

# F.01.003: Open Space and Landscaping

# A. Site Accessories.

1. Site features, such as recycling bins, bike racks, litter cans, planters, benches and transit shelters, should be designed as an integral part of the project.

2. Architectural character and use of materials should be consistent with the overall project. Design these features to be graffiti- and vandal-resistant by using materials that are easily cleaned or painted. Avoid interrupting connecting walkways with these features.

## B. Connecting Walkways.

1. Walkways should connect major building entries with the public sidewalk along the street.

2. Ideally, pedestrian walkways should be adjacent to buildings, and overlooked by frequent entries or windows.

3. Connecting walkways should be at least 5 FT in width (excluding car overhangs), and should be accompanied by a minimum 5-FT wide landscape buffer, with trees planted at least every 30 FT on center.

4. Walkways with decorative pavers, or other special design treatment, are preferred. Walkways should provide a direct route, without conflicting with parking and loading areas, and vehicular access and egress points to the parking areas.

# C. Site Entries.

1. Create visible "gateways" at major vehicular and pedestrian entries.

2. Entries to a project should be identified by decorative pavement, intensified landscaping, accent trees, and other decorative features.

3. Where site entries are adjacent to a building entry, the incorporation of pedestrian plazas are strongly encouraged.



Buildings and Parking Areas







**Outdoor Plaza Between Buildings** 

#### D. Plazas.

1. Plazas are encouraged as a site amenity and design detail.

2. Arrange buildings to include opportunities for plazas, courts or gardens, and lunch areas for employees with such amenities as outdoor seating, landscaping, water elements, pergolas, special lighting and other "place-making" features. Plazas are encouraged where high levels of pedestrian activity are expected, such as adjacent to major entrances and food services such as delis, restaurants and bakeries or between building clusters in a business park development.

3. Building entrances and windows should look onto plazas to enhance activity and security.

4. Locate outdoor employee welfare (break) areas away from loading areas, or other high-traffic areas.

#### F.01.004: Transit Facilities

#### A. Transit Stops.

1. Industrial Developments should be designed to take advantage of mass transit opportunities.

2. Development edges along arterial and collector streets should provide transit stops, including turnouts for bus stops. Developments without transit connections should be avoided.

#### B. Transit Shelters.

1. Transit shelters should be provided near major concentrations of employees.

2. Where a transit stop is planned adjacent to a project of at least 5 acres, the developer should coordinate with the transit district to determine a suitable location for an on-site transit shelter.

**3.** Freestanding shelters should be integrated architecturally with the project with respect to color, materials, and architectural style. Transit shelters should also contain trash receptacles and utilize solar power to provide lighting.



# F.01.005: Site Design

# A. Basic Orientation.

1. Entries, buildings, administrative (office) areas, and windows should front onto the street.

2. Attention should be provided to the "public perimeter" (i.e. areas visible from public streets and freeways and public access on-site and adjacent properties). Loading and parking should generally be located to the side and rear of buildings with the following exceptions:



a. Parking lots may front onto streets but must conform to guidelines contained within "Street Frontage and Parking Lots."

**b.** Where rear or side loading areas are not practical because of rail service or northerly winds, loading and service areas may front onto streets but must conform to guidelines contained within "loading and storage areas."

c. For buildings fronting on freeways or Mission Boulevard, loading areas should not face freeways or Mission Boulevard.

#### B. Street Frontage and Parking Lots.

1. Visitor and short-term parking lots may be sited between the street and building entrances.

2. Parking lots should not be the dominant visual element of a site. Large



expansive paved areas between the street and building(s) are to beavoided in favor of smaller lots separated by landscaping and buildings.

**3.** Where parking lots occur along streets, a landscaped buffer should be provided to minimize views of parked cars from the street and be permanently maintained. The landscaped buffer at the street should be at least 15 FT in width, excluding parkway landscaping. Within the landscaped buffer, trees should be spaced at 30 FT apart, and within 5 FT of the front property line. In addition, the landscape buffer should include a screening feature that is 3 FT in height, and includes a low wall, hedge, or equivalent.



4. Parking areas should be arranged to minimize conflicts with loading activities.

5. Parking areas should be accessed from the street so that circulation to parking

areas does not interfere with other site activities. Visitor parking should be located at the front and sides of buildings, near primary building entrances.

# C. Lighting.

1. Exterior lighting standards should be located and designed to minimize direct glare beyond the parking lot or service area.

2. Light standards under 25 FT in height (including lighting bollards) are encouraged throughout a project and should illuminate all sidewalks and connecting walkways. Taller standards may be used only if:

a. Reflectors direct light only toward the center of parking areas and at least 60 FT from a residential property; and

**b.** Trees are planted along streets and property lines at a spacing of not more than 30 FT.

3. Concealing light features within buildings and landscaping can highlight attractive features and avoid intrusion into neighboring properties. Use of lighting is especially encouraged at entries, plazas and other areas where evening



activity is expected. Lighting should utilize Metal Halide luminaires.

**D.** Loading and Storage Area Orientation/Design. Loading and storage areas should generally not face streets.

1. When loading areas must face a street due to the implementation of a cross-dock design or northerly winds, they must be screened with a decorative masonry wall. Where oblique views of these features are possible from streets, freeways, connecting walkways or residences, the features should be screened through the use of walls, trellises, tall landscaping, or equivalent features. Section plans should be prepared to show that the wall height is sufficient to screen the loading area, vehicles, and trailers from view of adjacent properties and streets.



2. Adequate room should be provided for trucks to maneuver or staging to unload. The area within 120 FT in front of loading docks should be paved and kept free of obstacles. In addition, loading and storage areas should not conflict with connecting walkways or required parking areas.

**3.** Loading areas should be designed to include attractive and durable materials. Design considerations for loading and storage areas include:

a. Locate fixed hardware for rolling doors on the inside of buildings to minimize visual "clutter".

**b.** In the loading and storage areas, building segments above loading doors visible from the street and surrounding properties should conform with other guidelines pertaining to building features, materials, and finishes.

c. If located adjacent to residential areas, the design of overhead doors should minimize noise through devices such as rubber seals and/or other dampening features.

d. Avoid outdoor storage exceeding a height of 8 feet and lower the grade of loading docks, where practical, to minimize views from the street and the need for tall walls or fencing.

E. Fences, Walls and Hedges. Fences and walls should be designed as an integral part of the whole project.

## 1. <u>Materials</u>.

a. Fences and walls should use materials and design elements that make it consistent with the design of the whole project.

**b.** Fences and walls in public view should be built with attractive durable materials, including (but not limited to) wrought iron, textured concrete block, or formed concrete with reveals. Fences or walls should be consistent with materials and designs used throughout the project. Sliding gates to loading areas visible from a street should be constructed with wrought iron and high density perforated metal screening, painted to match or complement adjacent walls. Site entries requiring gates should be offset from direct view to loading areas where possible

to minimize extent of screening and avoid direct view to loading areas when gates are open.

2. <u>Height</u>. Street side fences or walls should adequately screen views to the top of loading doors and bays, and parked tractors and trailers. The height of screen walls should not exceed 14 FT from the highest finished grade. The area in front of walls and fences should be landscaped with shrubs and trees reaching a mature height that exceeds the height of adjacent walls or fences.

# 3. <u>Special Design Considerations</u>.

a. Along street frontages, avoid long expanses of uninterrupted fences and walls. Long expanses of wall surfaces should be offset and architecturally treated to prevent monotony. Techniques to accomplish this treatment may include but are not limited to the following: raised planters, openings, material change, staggered sections, and pilasters or posts.

**b.** Provide openings to fences and walls to connect walkways directly to the street and avoid circuitous routes for pedestrians. These pedestrian "gateways" should be announced by pilasters, trellises, special landscaping, or other special features. Landscape berms should be provided to minimize the height impact of screen walls.



4. <u>Fences and Walls Adjacent to Non-Industrial Uses</u>. Where industrial uses are adjacent to non-industrial uses, appropriate buffering techniques such as setbacks, screening, and landscaping need to be provided to mitigate any negative effects of industrial uses.

5. <u>Fence and Wall Styles</u>. While site plans should avoid placing rear property lines along local streets and minor collectors, tall walls and fences are sometimes unavoidable along a street. Pilasters, planter boxes, trellises, material changes, planar changes, or other treatments should be used to avoid long and monotonous street fronts. Appropriate designs include:

- a. A solid wall with pilasters;
- **b.** A short wall with fencing and pilasters;
- c. Fencing with pilasters, staggered walls (i.e. change-in-plane);

d. Gated openings and planters integrated with walls. Pilasters, openings, or a 3-FT minimum change-in-plane, should occur at least every 40 FT; and

e. Exterior security fencing should be considered in the initial design stage to avoid the need for future modifications to the plan.

6. <u>Refuse Enclosures and Equipment</u>.

a. Refuse containers and equipment should be easily accessed by service vehicles, but screened from public view.

**b.** Locate refuse containers and equipment within a building's facade or within a screened enclosure. Reflect the architectural style of adjacent buildings in the design of enclosures, and use similar, high-quality materials. Landscaping or trellis work should be provided on each side of screened enclosures within parking areas, and when visible from a street or connecting walkway.

# F.01.006: Building Design.

A. General Massing and Roof Form. A single, dominant building mass should be avoided. Substantial variations in massing should include changes in height and horizontal plane.

1. Typically, horizontal masses for building elevations less than 700 lineal FT should not exceed a height to width ratio of 1:5 without a substantial architectural element that projects up or away from the building, such as towers, bays, lattices, or other architectural features. Buildings greater than 700 lineal feet should not exceed a height to width ratio of 1:6 without massing variations. A ratio of 1:10 may be considered for facades greater than 700 lineal FT with



external treatment detached from the building to help break the mass of the structure between massing breaks, including columns, colonnades, trellises, or enhanced landscape treatment.

2. The extent of massing breaks and building projections should relate visually to the overall scale of the building.

**3.** Roof forms should be simple, avoid a massive appearance, and reflect the internal organization of buildings.

4. Building projections should project 4 FT and must project a minimum of 2 FT. Building projections must also contain returns having a minimum length of 6 FT.

**B.** Entry Design. Entries and windows are encouraged to face streets and pedestrian walkways.

1. Projects with few employees should attempt to place entries and the most active areas near the street to avoid long, "unguarded" walkways. Incorporate special materials, color, detailing, or equivalent architectural treatment at major entries.



C. Gateway Facades. Facades visible from freeways, major arterial streets, and passenger rail connections should be especially attractive. These facades should include a major entry feature and fenestration over at least 25 percent of the facade's surface. A monolithic appearance (areas of unarticulated mass that is out of scale with the balance of the building) must be avoided.

# D. Mechanical Equipment Screening.

1. Rooftop and ground-mounted equipment must be screened from public view.

2. Where possible, integrate rooftop equipment into the overall mass of a building. At a minimum, screen roof mounted equipment through the use of parapets, screen walls, equipment wells, mechanical room enclosures and similar design features. Screening devices other than parapet walls shall be designed as an integral element of the building mass. Picket fencing, chain-link fencing and metal boxes shall





be avoided. The top of screens should be at least as high as the top of the equipment, with additional height provided where larger equipment units could be used in the future.

3. Cross-section drawings should be prepared to illustrate the method in which the equipment will be screened from view of adjacent streets, freeways and properties.

4. Typical ground-mounted equipment (such as transformers and heating units) should be screened with walls and/or landscaping. Large structures and/or equipment such as water tanks, silos and large bins, should be screened from public view through the use of building walls, decorative screen walls, and landscaping,

# F.01.007: Architectural Treatments

## A. Architectural Style.

1. Construction should reflect a chosen style through appropriate detailing, properly applied materials, and quality workmanship.

2. A consistent architectural style should be used for a building and the elements that relate to it, such as trellises, planters, light-standards, etc. Multiple building projects should also use a consistent architectural style.

**B. Base and Top Treatments.** Facades having a recognizable "base" and "top" are highly encouraged.

1. <u>Base</u>. The "base" should visually relate to the proportion and scale of the building. Techniques for establishing a base include, but are not limited to:

• Material changes incorporating richly textured materials (e.g., natural or manufactured stone, tile, or masonry treatments);

Color blocking through the use of darker colored materials;

- Thickened wall panels; and
- Reveal and mullion patterns.

2. <u>Top</u>. The "top" takes advantage of the visual prominence of a building's silhouette. Techniques for clearly expressing a top may include, but are not limited to:

Decorative, cornice treatments;

Roof overhangs incorporating decorative brackets;

Material changes incorporating richly textured materials;

Color blocking through paint and material changes;



Massing Break Example



Example External Treatment for Long Elevations



Materials Should Turn Corners
<u>Preferred</u> s should tur <u>Discouraged</u>
<u>Material Changes</u>

• The use of colored "stripes" is not an acceptable treatment;

• Texture, reveals and color may be appropriate in some applications, and

• On larger buildings (greater than 250,000 SF), vertical expressions that comply with the general massing provisions contained in Subsection F.1 (General Massing and Roof Form) of this Section, may be considered an alternative for "top" treatment.

# C. Building Wall Treatment.

1. Avoid blank walls between massing breaks, especially along facades visible from adjacent streets or walkways, by use of the following techniques:

- Changes in materials and textures;
- Revealed pilaster;

 Horizontal changes in plane (2 FT minimum and 4 FT recommended) that correspond with vertical changes in the parapet height;

Mullion and glazing patterns; and

Projecting horizontal lattices and colonnades with roofs or overhead trellises.

2. Vertical variations to the roofline should incorporate roof projections, to avoid a false front/unfinished appearance. Rear elevations screened from public view may be excluded.

**D. Roof Materials.** Roofing materials should be durable. Where visible from the street, acceptable roofing materials include metal standing seam, and concrete tile.

E. Material Changes. Avoid the false appearance of lightweight veneers, by hiding material changes through careful detailing. Material changes should not occur at external corners, but rather at "reverse" or interior corners, or as a "return" of at least 4 FT, measured from external corners, with extended returns provided for larger buildings.

#### F. Paint Palettes.

1. For larger building surfaces (excluding trim), colors should be muted.

**2.** Lighter colors should have a value equivalent to 30 percent or less on a grey scale.

3. Accent colors may include brighter and darker colors.



**G. Quality of Construction.** An attractive appearance to all facades should be provided through careful detailing, especially at [i] the base of buildings, [ii] along cornices, eaves, parapets or ridgetops, and [iii] around entries and windows. Appearance may also be enhanced through the correct use of materials, expansion joints, and reveals.

H. **Downspouts.** Downspouts should be concealed on facades that that are visible from a street or freeway.

# I. Windows.

1. Window frames should appear substantial and should not be flush with the exterior finish.

2. Glazing should be inset at least two inches from the front face of the exterior finish.

# J. Lighting.

1. All light standards should be consistent with respect to design, materials, color and color of light, and with the overall architectural style of the project.

2. At a minimum, all light standards should have an attractive base and top.

3. The use of "cobrahead" standards is not permitted.

4. Buildings and landscaping can be illuminated indirectly, to create a strong positive image.

# Reference G: Landscape Design and Construction Guidelines

Sections:

<u>G.01.001</u> :	Purpose
<u>G.01.002</u> :	Applicability
<u>G.01.003</u> :	Landscape Design Guidelines
<u>G.01.004</u> :	Prescriptive Compliance Option

Worksheets:

<u>G.01-1</u> :	Water Efficient Landscape Worksheet
<u>G.01-2</u> :	Landscape Architect—Certificate of Compliance
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<u>G.01-3</u>: Recommendations for Vegetated Swales

#### G.01.001: Purpose

These Landscape Design and Construction Guidelines are intended as a reference to assist design professionals, landscape contractors and homeowners in their understanding of the City's goals and objectives for the preparation of landscape construction documentation plans, and the installation of landscape materials and elements.

Furthermore, these guidelines are intended to compliment the mandatory landscape and irrigation regulations established by Development Code Division 6.5 (Landscaping), by providing examples of potential design solutions, and by providing design interpretations of the various mandatory regulations.

#### G.01.002: Applicability

A. The industrial design guidelines are general and may be interpreted with some flexibility in their application to specific projects. Variations may be considered for projects with special design characteristics during the City's development review process, to encourage the highest level of design quality, while at the same time providing the flexibility necessary to encourage creativity on the part of project designers. Nonetheless, unless there are compelling reasons or practical difficulties, these guidelines shall be observed.

**B.** Determinations of compliance with the Landscape Design and Construction Guidelines shall be made by the Approving Authority.

**C.** These Landscape Design and Construction Guidelines are authorized by Development Code Section 6.05.045 (Landscape Design and Construction Guidelines), and are enforceable in the same manner, and to the same extent, as any other applicable requirement of the Ontario Development Code.

#### G.01.003: Landscape Design Guidelines

**A.** Water conservation is a high priority in the City of Ontario. Landscapes shall be designed to use water efficiently without waste to the lowest practical amount and comply with the State's

current Model Water Efficient Landscape Ordinance. Sources for low water plants are WUCOLS, "Water Use Classification of Landscape Species" http://www.owue.water.ca.gov/docs/wucols00.pdf.

**B.** Landscape areas should be composed primarily of living plant materials spaced no greater than the mature diameter of each plant. Non-living ornamental features (boulders, gravel, dry stream beds, etc.) should comprise no more than 5 percent of the total landscape area and shall be a pervious material.

**C.** Warm season turf is recommended for recreational use projects (parks, sports fields, etc. where turf provides a playing surface) and residential projects with a maximum 50 percent of the landscape area. Planter areas irrigated by spray should be no less than 8 FT in width. Low water use groundcovers should be used in traditional turf areas; parkways, etc.

**D.** Design landscape areas and irrigation systems for use with recycled water where required by the City. New multiple-family residential projects must use recycled water for homeowner association (HOA) maintained areas, such as parks, parkways, neighborhood edges, and common areas. Single-family residential projects must use potable water with a backflow for all landscape areas, even if HOA maintained.

**E.** Property irrigated with recycled water must provide a physical separation from areas irrigated with potable water, by means of a wall, fence, paving, or a center mow curb within the landscape area, located 4 FT from the area irrigated with recycled water. Irrigation lines and heads may be located no closer than 2 FT of each side of the mow curb.

**F.** Concrete mowstrips, minimum 6 inches wide by 6 inches high or 4 inches wide by 6 inches high, must be provided at turf areas located adjacent to landscape planter areas, and to provide separation between adjacent properties or maintenance responsibility areas. Redwood header boards are allowed only for use with individual single-family homes, and to define a lot line adjacent to undeveloped property.

**G.** Design landscape areas so that utilities, such as backflow preventers, are screened by minimum 4-FT wide planter areas and massed with similar height shrubs (<u>Note</u>: Paint brass backflow preventers green (RAL 6009 Fir Green or equal)). Furthermore, coordinate landscape plans with utility plans, so that transformers are: **[i]** setback at least 4 FT from paved area and 5 FT from roadways, **[ii]** screened with shrubs of similar height on 3 sides; and **[iii]** planted with a maximum 18-inch high groundcover at the front.

**H.** Accent trees (single or multi-trunk specimens) are required at all nonresidential corner statements, including vehicular entries and the corners of major intersections. All accent trees should be minimum 36-inch box. Palms should have a minimum 17-FT brown trunk height (BTH), and a minimum 4-FT cubed rootball.

I. Foundation planting adjacent to buildings (hedgerows or shrub masses in a hierarchical pattern) must be provided at nonresidential primary exterior building elevations, and at residential front yards, to soften the break between the horizontal ground plane and the vertical building plane.

J. Plants at monument signs shall be made up of a hierarchy of ornamental shrubs or perennials.

K. Landscape areas must have a minimum inside dimension of 5 FT to accommodate tree

growth, and must have a minimum inside dimension of 6 FT in if it contains a vegetated swale.

L. Parking areas visible from public streets or adjacent parcels should be screened with landscaping having a height of at least 3 FT, or a combination of landscaping and maximum 3-FT high decorative walls.

**M.** Landscape areas adjacent to parking areas should be planted to accommodate a 2-FT overhang of vehicles, unless wheel stops are provided.

**N.** Parking lots should be planted with canopy shade trees having a minimum canopy diameter of 30 FT, provided at the minimum rate of one tree for each 5 parking spaces.

**O.** Parking lots with double rows of parking spaces are encouraged to provide a 4-FT to 5-FT wide landscaped strip containing an infiltration trench, where possible (see Infiltration Trench Example, right).

P. Parking lot landscaping shall maximize broad canopy shade tree planting to reduce heat gain on paving and buildings. Add large planters, center planter strips or diamond planters between parking rows for shade trees.

**Q.** Planters adjacent to parking spaces shall have a 12-inch wide curb, providing a step-out area for access to vehicles.



Infiltration Trench Example

**R.** Landscape areas should be bordered by 6-inch concrete curbs, except where openings into infiltration basins or swales are provided.

**S.** Trash enclosures should have adjacent planters with trees, shrubs, and vines to screen (see Trash Enclosure Adjacent Planters Example, right).

T. Parkway areas within street rights-ofway must be landscaped with living plant material less than 18 inches in height, automatically irrigated, and contain street trees pursuant to the Master Street Tree Plan, spaced at 25 to 35 FT apart, and coordinated with utility locations and setbacks.

**U.** Undeveloped areas within a project site must be seeded with a wildflower or ornamental grass mix, and automatically irrigated to prevent soil erosion from rain and strong winds.



Trash Enclosure Adjacent Planters Example

V. Projects with landscape areas within Caltrans rights-of-way must enter into a cooperative agreement with Caltrans San Bernardino Division, for landscape installation and maintenance.

**W**. Wireless telecommunications facilities must be screened with groupings (minimum 3) of approved live trees and shrubs, to blend the facility with adjacent tree or palm stands (California native trees and shrubs are preferred). Tree size should be minimum two-thirds the height of the facility, or as approved by the Planning Director. Permanent irrigation and regular maintenance shall be provided for all landscaped areas.

X. Additional landscape requirements may be required for projects located within established specific plan areas.

**Y.** Plant selection and irrigation design must be appropriate with the City's regional climate (Zone 18), classified as Mediterranean, and characterized by hot, dry summers and mild winters. Winter temperatures average between 60 and 70 degrees, with occasional lows in the 20's. Summers average from 75 to 90 degrees, with highs exceeding 100 degrees. Average yearly rainfall is approximately 16 inches. Winds develop from the southwest, averaging 6 mph. Hot, dry Santa Ana winds occur between October to March, from the northeast, at 30 mph, with gusts at 60 mph or more. Air quality is considered poor due to frequent temperature inversions trapping pollutants below the inversion.

# G.01.004: Prescriptive Compliance Option

**A.** This Section contains prescriptive requirements which may be used as a compliance option to the State Model Water Efficient Landscape Ordinance (CCR Title 23, Division 2, Chapter 2.7).

**B.** Compliance with the following items is mandatory and must be documented on landscape plan and irrigation plans in order to use the Prescriptive Compliance Option:

1. Submit Landscape and Irrigation Construction Documentation Plans (pursuant to Development Code Section 6.05.015.B.1, Landscape and Irrigation Construction Documentation Plans Required), which includes the following elements:

- a. Date;
- **b.** Project applicant;
- c. Project address (if available, parcel and/or lot number(s));

d. Total landscape area (square feet), including a breakdown of turf and plant material;

e. Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed);

f. Water supply type (e.g., potable, recycled, well) and identify the local water purveyor;

g. Contact information for the project applicant and property owner; and

**h.** Applicant signature and date, with the following statement: "I agree to comply with the requirements of the prescriptive compliance option to the Model Water Efficient
Landscape Ordinance".

2. Incorporate compost at a rate of at least 4 CY per 1,000 SF, to a depth of 6 inches into landscape area (unless contra-indicated by a soil test);

3. Plant material shall comply with all of the following;

a. For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75 percent of the plant area excluding edibles and areas using recycled water; For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 100 percent of the plant area excluding edibles and areas using recycled water;

**b.** A minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.

4. Turf shall comply with all of the following:

a. Turf shall not exceed 25 percent of the landscape area within residential zoning districts, and there shall be no turf allowed within non-residential zoning districts;

**b.** Turf shall not be planted on sloped areas which exceed a slope of one foot vertical elevation change for every 4 FT of horizontal length;

c. Turf is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to an off-street parking area and is used to enter and exit vehicles. Any turf in parkways must be irrigated by sub-surface irrigation or by other technology that creates no overspray or runoff.

5. Irrigation systems shall comply with the following:

**a.** Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data.

**b.** Irrigation controllers shall be of a type which does not lose programming date in the event the primary power source is interrupted.

c. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

d. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.

e. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

**C.** At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule, and a schedule of landscape and irrigation maintenance.

# City of Ontario Landscape Planning Division

## G.01-1: Water Efficient Landscape Worksheet

Reference Ev	apotranspir	ation (ETo):					
Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method <sup>b</sup>	Irrigation Efficiency (IE) °	ETAF (PF/IE)	Landscape Area (SF)	ETAF x Area	Estimated Total Water Use (ETWU) <sup>d</sup>
Regular Landscape	Areas						
				Totals	(A)	(B)	
Special Landscape	Areas						
				1			
				1			
				1			
				Totals	(C)	(D)	
		ETWU Total					
			Maxim	um Allowed V	Vater Allowan	ce (MAWA) °	

#### Legend:

<ul> <li>Hydrozone #/Planting Description</li> <li>e.g.: [1] front lawn; [2] low water use plantings; and [3] medium water use planting</li> </ul>	<sup>b</sup> Irrigation Method overhead spray or drip	<ul> <li>Irrigation Efficiency</li> <li>0.75 for spray head</li> <li>0.81 for drip</li> </ul>
<ul> <li>d ETWU (Annual Gallons Required)</li> <li>= Eto x 0.62 x ETAF x Area</li> <li>where 0.62 is a conversion factor that</li> <li>converts acre-inches per acre per year</li> <li>to gallons per square foot per year</li> </ul>	• MAWA (Annual Gallons Allowed) = (Eto) ( where 0.62 is a conversion factor that of gallons per square foot per year, LA is the the total special landscape area in squa and 0.45 for non-residential areas.	0.62) [ (ETAF x LA) + ((1-ETAF) x SLA)] converts acre-inches per acre per year to total landscape area in square feet, SLA is re feet, and ETAF is .55 for residential areas

#### ETAF Calculations:

Regular Landscape Areas

Total ETAF x Area	(B)
Total Area	(A)
Average ETAF	Β÷Α

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

#### All Landscape Areas

Total ETAF x Area	(B+D)
	1 <i>1</i>

# **City of Ontario** Landscape Planning Division

## G.01-2: Landscape Architect—Certificate of Compliance

Senior Landscape Planner: 909/395-2237 Associate Landscape Planner: 909/395-2615

Project Name: \_\_\_\_\_

Project Address

Permit No.:

The undersigned Landscape Architect certifies that the complete landscape and irrigation installation is in compliance to approved plans. Any deviation to approved plans shall require a re-submittal to the Landscape Planning Division for review and approval prior to installation.

	Landscape Architect's Inspection	Date	Initial
1)	Hardscape construction complies with approved plan:		
2) coverc	2) Irrigation installation verified: trench, pipe size, pressure test, coverage test:		
3)	3) Irrigation controller chart with landscape maintenance schedule:		
4) receip	4) Soil report, compaction test and amendments verified with receipt:		
5)	5) Verification of plant material, quantity, and quality:		
6)	6) Verified ET sensor and controller installed and programming set up:		
7) Wo SF:	ater Budget: Landscape: MAWA: Gallon/year ETWU =	_Gallon/ye	ear

After the receipt of this Certification, the Landscape Planner will conduct the final landscape Inspection. The Owner's Representative and Landscape Contractor shall be present.

Landscape Architect (Print)	Company Name	
Landscape Architect (Signature)	Address	
License Number	Phone Number	

# **City of Ontario** Landscape Planning Division

# G.01-3: Recommendations for Vegetated Swales

Hydroseed mix for irrigated and partially irrigated sites with some standing water:

SEED	LBS/ACRE
ACHILLEA MILLEFOLIUM	1.0
eschscholzia caespitosa	1.0
JUNCUS BUFONIUS	1.0
LEYMUS TRITICOIDES RIO	6.0
deschampsia cespitosa	4.0
FESTUCA RUBRA 'MOLATE'	10.0
HORDEUM BRACHYANTHERUM	6.0
MUHLENBERGIA RIGENS	1.0
MUHLENBERGIA MICROSPERMA	3.0
HORDEUM DEPRESSUM	3.0

#### Hydroseeding slurry component for slopes from 3:1 to 2:1:

<u>Product</u>	Application Rate
Wood Fiber Mulch	2000 lbs/acre
Binder/Tackifier	200 lbs/acre

ProductApplication RateOrganic fertilizer800 lbs/acreMycorrhizal inoculum60 lbs/acre

Add to slope rolled erosion control netting product (RECP Netting) 20.6 ounce weight per yd2, for landscape areas directly receiving pavement run off.

#### Shrubs from 1-5 gallon containers should be approximately planted on the swale side slopes:

FESTUCA IDAHOENSIS — Blue Fescue, 1 FT x 1 FT MUHLENBERGIA RIGENS — Deer Grass, 4 FT x 4 FT FESTUCA MAIREI — Marie's Fescue, 2 FT x 2 FT CAREX PANSA — California meadow sedge, 1 FT x 1 FT LEYMUS CONDENSATUS — Canyon Prince, 4 FT x 3 FT LEYMUS TRITICOIDES — Creeping Wild Rye, 2 FT x 2 FT

#### Trees from containers 5 to 15 gallons should be appropriately planted on the top of side slopes:

QUERCUS AGRIFOLIA — COAST LIVE OAK, space 35 FT apart. PLATANUS ACERIFOLIA — LONDON PLANE TREE, space 35 FT apart.

#### Soils with low infiltration rates less than one inch per hour shall:

• Excavate an additional 18 to 36 inches deep and add engineered soil mix in the swale bottom.

Provide soil testing to determine additional methods to increase infiltration.

#### Suitable Bioswale Soil:

• <u>General</u>. Topsoil shall be free of roots, clods, or stones larger than 1-inch in the greatest dimension, pockets of coarse sand, noxious weeds, sticks, lumber, brush, and other litter. It shall not be infested with nematodes or other undesirable disease-causing organisms such as insects and plant pathogens or any hazardous materials.

1. Topsoil shall be friable and have sufficient structure in order to give good tilth and aeration to the soil.

2. Gradation limits-soil shall be a sandy loam. Gravel over <sup>1</sup>/<sub>4</sub>inch in diameter shall be less than 20 percent by weight.

3. Permeability Rate shall be not less than one inch per hour, nor more than 20 inches per hour.

• <u>Soil Organic Matter Content</u>. The desirable range is 3 percent to 5 percent. Sufficient soil organic matter shall be present to impart good physical soil properties but not be excessive to cause toxicity or cause excessive reduction in the volume of soil due to decomposition of organic matter.

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(The Community Climate Action Plan, adopted by the Ontario City Council on August 16, 2022, by Resolution No. 2022-132, follows this page)

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## Reference I: Chino Airport Land Use Compatibility Plan

Sections:

<u>I.01.001:</u>	Introduction
<u>1.01.002:</u>	Purpose
<u>1.01.003:</u>	Definitions
<u>1.01.004:</u>	Compatibility Factors
<u>1.01.005:</u>	Evaluating Land Use Consistency
<u>1.01.006:</u>	Criteria Tables and Policy Maps

#### I.01.001: Introduction

The California State Aeronautics Act (Public Utilities Code, Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan (Compatibility Plan) be prepared for all public-use airports in the state to:

"protect the public health, safety, and welfare by ensuring orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible land uses."

State law also requires local land use plans and individual development proposals to be consistent with policies set forth in Compatibility Plans. The statutes also require that local jurisdictions preparing Compatibility Plans "rely upon" the compatibility guidance provided by the California *Airport Land Use Planning Handbook* published by the California Department of Transportation (Caltrans), Division of Aeronautics in January 2011.

The responsibility for the preparation and adoption of compatibility plans falls to the county airport land use commission (ALUC). However, State law also provides for what is generally referred to as an "Alternative Process" wherein a county does not have to form an ALUC and the required compatibility planning responsibilities fall to local jurisdictions. San Bernardino County and its cities elected to follow the Alternative Process when this option became available as a result of the 1994 legislation (Assembly Bill 2831). Specific requirements for implementation of the Alternative Process are set forth in Public Utilities Code Section 21670.1(c)(2).

Use of the Alternative Process within San Bernardino County was established in 1995 by resolutions of the County Board of Supervisors and the city councils of cities affected by airports. The California Division of Aeronautics approved the San Bernardino County Alternative Process in 1996. The approval of the Alternative Process designated the City of Chino as the local jurisdiction responsible for leading the compatibility planning process for Chino Airport.

The current Chino Airport Land Use Compatibility Plan (ALUCP) does not reflect the guidance set forth in the 2011 Caltrans Airport Land Use Planning Handbook. Although, the City of Ontario does not have the formal responsibility under the "alternative process" to prepare a compatibility plan for Chino Airport, the City of Ontario has prepared an airport land compatibility plan for Chino Airport consistent with the 2011 Caltrans Airport Land Use Planning Handbook solely to address impacts within Ontario's boundaries.

Chino Airport is owned and operated by the County of San Bernardino and is situated within the boundaries of the City of Chino, immediately south of Ontario. Chino Airport (CNO) is the busiest

non-commercial airport within a 20-mile radius of the City of Ontario, making it a leading general aviation airport of choice for independent pilots, students and trainers, and corporate users. CNO occupies 1,097 acres, has three runways, and provides full precision instrument approach capabilities. The airport reported nearly 165,000 annual operations for the 12-month period ending in September 2019. Aircraft operations on Runway 3-21 (northeast/southwest crosswind runway) and Runway 8L-26R (northern east/west parallel runway) have the greatest effect on the City of Ontario. A brief summary of airport facilities is provided below and shown in **Figure I-1: Chino Airport Diagram**.



### **Chino Airport Facilities**

- Runway 3-21
  - Airport Reference Code: C-II
  - Existing Runway Dimensions: 4,919 feet x 150 feet
  - Runway is lighted for nighttime operations
  - Approach Visibility Minimums (lowest): Visual (>1-mile)
  - Title 14 Code of Federal Regulation (CFR), Part 77 category and approach slope: B(V), 20:1
  - Traffic Pattern: Runway 3 (right), Runway 21 (left)

#### Runway 8L-26R

- Airport Reference Code: C-III
- Runway Dimensions:
- Existing: 4,858 feet x 150 feet
- Future: 5,500 feet x 150 feet
- Existing Approach Visibility Minimums (lowest) and Part 77 category and approach slope:
- Runway 8L: Visual (>1 mile); B(V), 20:1
- Runway 26R: Precision (<3/4 mile); 50:1
- Traffic Pattern: Runway 8L (right), Runway 26R (left)

#### Runway 8R-26L

- Airport Reference Code: D-III
- Existing Runway Dimensions: 7,000 feet x 150 feet
- Runway is lighted for nighttime operations
- Approach Visibility Minimums (lowest):
  - Existing Runway 8R and 26L: Visual, >1-mile
  - > Future Runway 26L: Precision (3/4 mile)
  - Part 77 category and approach slope:
  - > Existing: B(V), 20:1
  - > Future Runway 26L: Precision, 50:1
- Traffic Pattern: Runway 8R (right), Runway 26L (left)

#### I.01.002: Purpose

The purpose of the "Airport Land Use Compatibility Plan" (ALUCP) for Chino Airport (CNO) is to promote compatibility between CNO and the land uses that surround it. The City's general plan, specific plans, and zoning ordinances shall be made consistent with the CNO ALUCP through incorporation of the compatibility policies into their land use policy documents.

The main objective of the ALUCP is to avoid future compatibility conflicts rather than to remedy existing incompatibilities. Also, the ALUCP is aimed at addressing future land uses and development, not airport activity. The ALUCP does not place any restrictions on the present and future role, configuration, or use of the airport.

#### I.01.003: Definitions

A. **Purpose.** The purpose of this section is to establish definitions for terms and phrases used in this CNO ALUCP that are technical or specialized, or that may not reflect common usage.

B. Terms and Phrases. Definitions of Words Beginning with the Letter "A."

Above Ground Level (AGL): An elevation datum given in feet above ground level.

Accident Potential Zones (APZs): A set of safety-related zones defined by AICUZ studies for areas beyond the ends of military airport runways. Typically, three types of zones are established: a clear zone closest to the runway end, then APZ I and APZ II. The potential for aircraft accidents and the corresponding need for land use restrictions is greatest with the clear zone and diminishes with increased distance from the runway.

Air Carriers: The commercial system of air transportation, consisting of the certificated air carriers, air taxis (including commuters), supplemental air carriers, commercial operators of large aircraft, and air travel clubs.

Aircraft Accident: An occurrence incident to flight in which, as a result of the operation of an aircraft, a person (occupant or nonoccupant) receives fatal or serious injury or an aircraft receives substantial damage.

1) Except as provided below, "substantial damage" means damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component.

2) Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage."

**Aircraft Incident:** A mishap associated with the operation of an aircraft in which neither fatal or serious injuries nor substantial damage to the aircraft occur.

Aircraft Mishap: The collective term for an aircraft accident or an incident.

**Aircraft Operation:** The airborne movement of aircraft at an airport or about an en route fix or at other point where counts can be made. There are two types of operations: local and itinerant. An operation is counted for each landing and each departure, such that a touch-andgo flight is counted as two operations.

**Airport:** An area of land or water that is used or intended to be used for the landing and taking off of aircraft and includes its buildings and facilities if any.

Airport Elevation: The highest point of an airport's useable runways, measured in feet above mean sea level.

**Airport Land Use Compatibility Plan (ALUCP):** A planning document that contains policies for promoting safety and compatibility between public use airports and the communities that surround them. The ALUCP is the foundation of the airport land use compatibility planning process.

**Airport Layout Plan (ALP):** A scale drawing of existing and proposed airport facilities, their location on an airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.

Airport Master Plan (AMP): A long-range plan for development of an airport, including descriptions of the data and analyses on which the plan is based.

Airport Reference Code (ARC): A coding system used to relate airport design criteria to the operation and physical characteristics of the airplanes intended to operate at an airport.

Airports, Classes of: For the purposes of issuing a Site Approval Permit, The California Department of Transportation, Division of Aeronautics classifies airports into the following categories: 1) <u>Agricultural Airport or Heliport</u>: An airport restricted to use only be agricultural aerial applicator aircraft (FAR Part 137 operators).

2) Emergency Medical Services (EMS) Landing Site: A site used for the landing and taking off of EMS helicopters that is located at or as near as practical to a medical emergency or at or near an medical facility and: 1) has been designated an EMS landing site by an officer authorized by a public safety agency, as defined in PUC Section 21662.1, using criteria that the public safety agency has determined is reasonable and prudent for the safe operation of EMS helicopters; 2) is used, over any twelve month period, for no more than an average of six landings per month with a patient or patients on the helicopter, except to allow for adequate medical response to a mass casualty event even if that response causes the site to be used beyond these limits; 3) is not marked as a permitted heliport as described in Section 3554 of these regulations; and 4) is used only for emergency medical purposes.

3) <u>Heliport on Offshore Oil Platform</u>: A heliport located on a structure in the ocean, not connected to the shore by pier, bridge, wharf, dock, or breakwater, used in the support of petroleum exploration or production.

4) <u>Personal-Use Airport</u>: An airport limited to the non-commercial use of an individual owner or family and occasional invited guests.

5) <u>Public-Use Airport</u>: An airport that is open for aircraft operations to the general public and is listed in the current edition of the Airport/Facility Directory that is published by the National Ocean Service of the U.S. Department of Commerce.

6) <u>Seaplane Landing Site</u>: An area of water used, or intended for use, for landing and takeoff of seaplanes.

7) <u>Special-Use Airport or Heliport</u>: An airport not open to the general public, access to which is controlled by the owner in support of commercial activities, public service operations, and/or personal use.

8) <u>Temporary Helicopter Landing Site</u>: A site, other than an emergency medical service landing site at or near a medical facility, which is used for landing and taking off of helicopters and is used or intended to be used for less than one year, except for recurrent annual events and is not marked or lighted to be distinguishable as a heliport and is not used exclusively for helicopter operations.

Ambient Noise Level: The level of noise that is all encompassing within a given environment for which a single source cannot be determined. It is usually a composite of sounds from many and varied sources near to and far from the receiver.

Approach Protection Easement: A form of easement that both conveys all of the rights of an avigation easement and sets specified limitations on the type of land uses allowed to be developed on the property.

**Approach Speed:** The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration.

**Aviation-Related Use:** Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an airport or heliport.

Such uses specifically include runways, taxiways, and their associated protected areas defined by the Federal Aviation Administration, together with aircraft aprons, hangars, fixed base operations, terminal buildings, etc.

Avigation Easement: A type of easement that typically conveys the following rights:

1) A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (usually set in accordance with FAR Part 77 criteria).

2) A right to subject the property to noise, vibrations, fumes, dust, and fuel particle emissions associated with normal airport activity.

3) A right to prohibit the erection or growth of any structure, tree, or other object that would enter the acquired airspace.

4) A right-of-entry onto the property, with proper advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace.

5) A right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property.

**Based Aircraft:** Aircraft stationed at an airport on a long-term basis.

Ceiling: Height above the earth's surface to the lowest layer of clouds or obscuring phenomena.

**Circling Approach/Circle-to-Land Maneuver:** A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable.

**Commercial Activities:** Airport-related activities that may offer a facility, service or commodity for sale, hire or profit. Examples of commodities for sale include but are not limited to food, lodging, entertainment, real estate, petroleum products, parts, and equipment. Examples of services include but are not limited to flight training, charter flights, maintenance, aircraft storage, and tiedown.

**Commercial Operator:** A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier.

**Community Noise Equivalent Level (CNEL):** The noise metric adopted by the State of California for evaluating airport noise. It represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and nighttime periods relative to the daytime period.

**Compatibility Plan:** As used herein, a plan, that sets forth policies for promoting compatibility between airports and the land uses that surround them.

**Controlled Airspace:** Any of several types of airspace within which some or all aircraft may be subject to air traffic control.

**Day-Night Average Sound Level (DNL):** The noise metric adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods. The mathematical symbol is L<sub>dn</sub>.

**Decibel (dB):** A unit measuring the magnitude of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound, specifically a sound just barely audible to an unimpaired human ear. For environmental noise from aircraft and other transportation sources, an A-weighted sound level (abbreviated dBA) is normally used. The A-weighting scale adjusts the values of different sound frequencies to approximate the auditory sensitivity of the human ear.

**Deed Notice:** A formal statement added to the legal description of a deed to a property and on any subdivision map. As used in airport land use planning, a deed notice would state that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas.

**Displaced Threshold:** A landing threshold that is located at a point on the runway other than the designated beginning of the runway (see *Threshold*).

**Equivalent Sound Level (Leq):** The level of constant sound that, in the given situation and time period, has the same average sound energy as does a time-varying sound.

FAR Part 77: The part of the Federal Aviation Regulations that deals with objects affecting navigable airspace.

**FAR Part 77 Surfaces:** Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.

**Federal Aviation Administration (FAA):** The U.S. government agency that is responsible for ensuring the safe and efficient use of the nation's airports and airspace.

Federal Aviation Regulations (FAR): Regulations formally issued by the FAA to regulate air commerce.

**Fixed Base Operator (FBO):** A business that operates at an airport and provides aircraft services to the general public including, but not limited to, sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.

Fleet Mix: The composition of aircraft that operate at a particular airport.

Flight Tracks: Routes aircraft routinely use when arriving and departing from an airport.

Forecasts: A projection of the amount and type of aircraft operations at an airport.

General Aviation: That portion of civil aviation that encompasses all facets of aviation except air carriers.

**General Aviation Airport:** Airports that do not receive scheduled commercial service, or do not meet the criteria for classification as a commercial service airport. General aviation airports have at least 10 locally based aircraft, are at least twenty miles from the nearest NPIAS airports.

**Glide Slope:** An electronic signal radiated by a component of an ILS to provide vertical guidance for aircraft during approach and landing.

Helipad: A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters.

Heliport: A facility used for operating, basing, housing, and maintaining helicopters. (HAI)

Infill: Development that takes place on vacant property largely surrounded by existing development, especially development that is similar in character.

Inner Approach/Departure Zone: A rectangular area extending beyond the RPZ. If the RPZ widths approximately equal the runway widths, the Inner Approach/Departure Zoned extends along the sides of the RPZ from the end of the runway.

**Inner Turning Zone:** A triangular area over which aircraft are turning from the base to final approach legs of the standard traffic pattern. It also includes the area where departing aircraft normally complete the transition from takeoff to climb mode and begin to turn on their en route headings.

**Instrument Approach Procedure:** A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority (refer to Nonprecision Approach Procedure and Precision Approach Procedure).

**Instrument Flight Rules (IFR):** Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail.

Instrument Landing System (ILS): A precision instrument approach system that normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights.

**Instrument Operation:** An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility.

**Instrument Runway:** A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved.

**Inverse Condemnation:** An action brought by a property owner seeking just compensation for land taken for a public use against a government or private entity having the power of eminent domain. It is a remedy peculiar to the property owner and is exercisable by that party where it appears that the taker of the property does not intend to bring eminent domain proceedings.

Land Use Density: A measure of the concentration of land use development in an area. Mostly the term is used with respect to residential development and refers to the number of dwelling units per acre. Unless otherwise noted, policies in this compatibility plan refer to gross rather than *net* acreage.

Land Use Intensity: A measure of the concentration of nonresidential land use development in an area. For the purposes of airport land use planning, the term indicates the number of people per acre attracted by the land use. Unless otherwise noted, policies in this compatibility plan refer to gross rather than net acreage.

Large Airplane: An airplane of more than 12,500 pounds maximum certificated takeoff weight.

Localizer (LOC): The component of an ILS that provides course guidance to the runway.

Mean Sea Level (MSL): An elevation datum given in feet from mean sea level.

Minimum Descent Altitude (MDA): The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided.

**Missed Approach:** A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing.

**National Transportation Safety Board (NTSB):** The U.S. government agency responsible for investigating transportation accidents and incidents.

**Navigational Aid (Navaid):** Any visual or electronic device airborne or on the surface that provides point-to-point guidance information or position data to aircraft in flight.

**Noise Contours:** Continuous lines of equal noise level usually drawn around a noise source, such as an airport or highway. The lines are generally drawn in 5-decibel increments so that they resemble elevation contours in topographic maps.

**Noise Level Reduction (NLR):** A measure used to describe the reduction in sound level from environmental noise sources occurring between the outside and the inside of a structure.

**Nonconforming Use:** An existing land use that does not conform to subsequently adopted or amended zoning or other land use development standards.

**Nonprecision Approach Procedure:** A standard instrument approach procedure in which no electronic glide slope is provided.

**Nonprecision Instrument Runway:** A runway with an approved or planned straight-in instrument approach procedure that has no existing or planned precision instrument approach procedure.

**Obstruction:** Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, the height of which exceeds the standards established in Subpart C of Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace.

**One-Engine Inoperative (OEI) Obstacle Identification Surface:** For airports with runways that support air carrier operations, this surface begins at the same elevation of the end of the departure runway and slopes upward at 1 foot vertically to 62.5 feet horizontally. The inner width of the OEI surface is 600 feet while the outer width is 12,000 feet. The surface extends for a distance of 50,000 feet along the runway centerline.

**Outer Approach/Departure Zone:** A rectangular area located along the extended centerline beyond the Inner Approach/Departure Zone.

**Overflight:** Any distinctly visible and/or audible passage of an aircraft in flight, not necessarily directly overhead.

**Overflight Easement:** An easement that describes the right to overfly the property above a specified surface and includes the right to subject the property to noise, vibrations, fumes, and emissions. An overflight easement is used primarily as a form of buyer notification.

**Overflight Zone:** The area(s) where aircraft maneuver to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.

**Precision Approach Procedure:** A standard instrument approach procedure where an electronic glide slope is provided.

**Precision Instrument Runway:** A runway with an existing or planned precision instrument approach procedure.

**Qualified Airport Wildlife Biologist:** A biologist who has received specific training to identify hazards to aircraft operations pursuant to FAA criteria set forth at Advisory Circular 150/5200-36A, Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculums for Airport Personnel Involved in Controlling Wildlife Hazards on Airports.

**Referral Area:** The area around an airport defined by the planning area boundary adopted by an airport land use commission within which certain land use proposals are to be referred to the commission for review.

**Runway Protection Zone (RPZ):** An area (formerly called a *clear zone*) off the end of a runway used to enhance the protection of people and property on the ground.

**Safety Zone:** For the purpose of airport land use planning, an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.

Sideline Zone: A rectangular area in close proximity and parallel to the runway.

**Single-Event Noise:** As used in herein, the noise from an individual aircraft operation or overflight.

**Single Event Noise Exposure Level (SENEL):** A measure, in decibels, of the noise exposure level of a single event, such as an aircraft flyby, measured over the time interval between the initial and final times for which the noise level of the event exceeds a threshold noise level and normalized to a reference duration of one second. SENEL is a noise metric established for use in

California by the state Airport Noise Standards and is essentially identical to Sound Exposure Level (SEL).

Site Approval Permit: A written approval issued by the California Department of Transportation authorizing construction of an airport in accordance with approved plans, specifications, and conditions. Both public-use and special-use airports require a site approval permit. (CCR)

**Small Airplane:** An airplane of 12,500 pounds or less maximum certificated takeoff weight. (Airport Design AC)

**Sound Exposure Level (SEL):** A time-integrated metric (i.e., continuously summed over a time period) that quantifies the total energy in the A-weighted sound level measured during a transient noise event. The time period for this measurement is generally taken to be that between the moments when the A-weighted sound level is 10 dB below the maximum.

**Straight-In Instrument Approach:** An instrument approach wherein a final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)

**Taking:** Government appropriation of private land for which compensation must be paid as required by the Fifth Amendment of the U.S. Constitution. It is not essential that there be physical seizure or appropriation for a *taking* to occur, only that the government action directly interferes with or substantially disturbs the owner's right to use and enjoyment of the property.

**Terminal Instrument Procedures (TERPS):** Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.

Threshold: The beginning of that portion of the runway usable for landing (also see Displaced Threshold).

**Touch-and-Go:** An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway.

**Traffic Pattern:** The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach.

**Traffic Pattern Zone:** An elliptical area that includes the majority of other portions of regular air traffic patterns and pattern entry routes, and generally extends to the farthest point of 6,000 foot radius arcs from the centers of each of the primary surfaces and connecting lines tangent to those arcs.

Visual Approach: An approach where the pilot must use visual reference to the runway for landing under VFR conditions.

**Visual Flight Rules (VFR):** Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum-generally, a 1,000-foot ceiling and 3-mile visibility.

**Visual Runway:** A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan.

#### I.01.004: Compatibility Factors

In accordance with guidance set forth the by 2011 Airport Land Use Planning Handbook (Handbook) published by the California Department of Transportation (Caltrans), Division of Aeronautics, the CNO Airport Influence Area (AIA) encompasses all lands that could be negatively impacted by CNO's present, or future aircraft operations or land uses that could negatively affect airport operations. The AIA is depicted in **Policy Map I-1 (Chino Airport Influence Area)** and encompasses the geographic extent of four types of compatibility impacts, referred to as compatibility factors, listed below:

- Safety: Areas where the risk of an aircraft accident poses heightened safety concerns for people and property on the ground.
- Noise: Locations exposed to potentially disruptive levels of aircraft noise.
- Airspace Protection: Places where height and certain other land use characteristics, particularly uses that attract birds, need to be restricted in order to protect the airspace required for operation of aircraft to and from the airport.
- Overflight: Locations where aircraft overflights can be intrusive and annoying to many people.

The potential impact of each compatibility factor on land within the City of Ontario were evaluated and maps, criteria, and policy language have been created to guide development within the Chino AIA. The compatibility policies and criteria to evaluate future development proposals are consistent with the 2011 Caltrans Airport Land Use Planning Handbook.

**A. Safety.** The intent of the safety compatibility policies is to minimize the risks associated with an off-airport aircraft accident or emergency landing. The policies focus on reducing the potential consequences of such events when they occur. The potential risks to people and property within the CNO AIA and to people on board the aircraft are considered.

The Handbook provides sets of generic zones for different types of general aviation runways and the shapes and sizes of the zones were established based upon mathematical analyses of the accident location data and flight parameters. The Handbook safety zones and criteria serve as the basis for this CNO ALUCP and are described below:

- The generic Handbook safety zones for a Medium General Aviation Runway Group were applied for the approach end of Runway 21 (northeast) and Runway 26R (east); and
- The generic Handbook safety zones for a Long General Aviation Runway Group were applied for the approach end of Runway 26L (east).

For implementation purposes, the generic Handbook Safety Zone boundaries were adjusted to follow parcel lines, roads, and other geographic features. The reconfiguration of the safety zones did not result in a substantial net acreage reduction of the safety zones. For consistency, the CNO Safety Zones maintain the same numbering system used in the Handbook. Portions of Safety Zones

1, 2, 3, 4 and 6 are located within Ontario city limits and are depicted in **Policy Map I-2 (Chino Airport Safety Zones)**. Safety Zone 5 is located outside of the Ontario city limits and not included in the CNO ALUCP.

1. <u>Safety Zone 1</u>. Zone 1 reflects the airport's established Runway Protection Zone (RPZ). Portions of the RPZ are located off airport within the City of Ontario and shall be maintained as undeveloped land, clear of objects in accordance with FAA standards. Below is a summary of risk and basic compatibility policies listed in the Handbook.

Nature of Risk	Basic Compatibility Policies
Normal Maneuvers:	Normally Allowed Uses:
<ul> <li>Aircraft on very close final approach or departure – very high risk.</li> </ul>	■ None
Altitude:	Uses to Avoid:
<ul> <li>Less than 200 feet above runway.</li> </ul>	<ul> <li>Nonresidential uses except if very low intensity in character and confined to the outer sides such as parking lots, streets, roads.</li> </ul>
Common Accident Types:	Prohibit:
<ul> <li>Arrival: Downdrafts and wind gusts. Low glide paths.</li> </ul>	<ul> <li>All new structures and residential land uses.</li> </ul>
<ul> <li>Departure: Runway overruns, aborted takeoffs, and engine failures.</li> </ul>	
Risk Level:	Other Factors:
<ul> <li>Very high.</li> </ul>	<ul> <li>Airport ownership of property encouraged.</li> </ul>
<ul> <li>Percentage of near-runway accidents in this zone: 20% - 21%.</li> </ul>	

2. <u>Safety Zone 2</u>. Zone 2 reflects the Inner Approach/Departure Zone. Below, is a summary of risk and basic compatibility policies listed in the Handbook.

Nature of Risk	Basic Compatibility Policies
Normal Maneuvers: • Aircraft overflying at low altitudes on final approach and straight-out departures.	<ul> <li>Normally Allowed Uses:</li> <li>Agriculture; non-group recreational uses.</li> <li>Low-hazard materials storage, warehouses.</li> <li>Low-intensity light industrial uses; auto, aircraft, marine repair services.</li> </ul>
Altitude: • Between 200 and 400 feet above runway.	<ul> <li>Uses to Limit:</li> <li>All residential uses except as infill in developed areas.</li> <li>Multi-story uses; uses with high density or intensity.</li> <li>Shopping centers, most eating establishments.</li> </ul>
<ul> <li>Common Accident Types:</li> <li>Arrival: Similar to Zone 1, aircraft under-shooting approaches, forced short landings.</li> <li>Departure: Similar to Zone 1, emergency landing on straight-out departure.</li> </ul>	<ul> <li>Uses to Avoid:</li> <li>All residential uses except as infill in developed areas.</li> <li>Multi-story uses; uses with high density or intensity.</li> </ul>

Nature of Risk	Basic Compatibility Policies	
	<ul> <li>Shopping centers, most eating establishments.</li> </ul>	
<ul> <li>Risk Level:</li> <li>High</li> <li>Percentage of near-runway accidents in this zone: 8% to 22% Aircraft on very close final approach or departure – very high risk.</li> </ul>	<ul> <li>Uses Prohibit:</li> <li>Theaters, meeting halls and other assembly uses.</li> <li>Office buildings greater than 3 stories.</li> <li>Labor-intensive industrial use Nonresidential uses except if very low intensity in character and confined to the outer sides Parking lots, streets, roads.</li> </ul>	

3. <u>Safety Zone 3</u>. Zone 3 reflects the Inner Turning Zone. Below is a summary of risk and basic compatibility policies listed in the Handbook.

Nature of Risk	Basic Compatibility Policies	
Normal Maneuvers: • Aircraft—especially smaller, piston-powered aircraft— turning base to final on landing approach or initiating turn to en route direction on departure.	<ul> <li>Normally Allowed Uses:</li> <li>Uses allowed in Zone 2</li> <li>Greenhouses, low-hazard materials storage, mini-storage, warehouses</li> <li>Light industrial, vehicle repair services</li> </ul>	
<ul> <li>Altitude:</li> <li>Less than 500 feet above runway, particularly on landing.</li> </ul>	<ul> <li>Uses to Limit:</li> <li>Residential uses to very low densities.</li> <li>Office and other commercial uses to low intensities.</li> </ul>	
<ul> <li>Common Accident Types:</li> <li>Arrival: Pilot overshoots turn to final and inappropriately cross controls the airplane rudder and ailerons while attempting to return to the runway alignment causing stall, spin, and uncontrolled crash.</li> <li>Departure: Mechanical failure on takeoff; low altitude gives pilot few options on emergency landing site; or, pilot attempts to return to airport and loses control during tight turn.</li> </ul>	<ul> <li>Uses to Avoid:</li> <li>Commercial and other nonresidential uses having higher usage intensities.</li> <li>Building with more than 3 aboveground habitable floors.</li> <li>Hazardous uses (e.g., aboveground bulk fuel storage).</li> </ul>	
<ul> <li>Risk Level:</li> <li>Moderate to high.</li> <li>Percentage of near-runway accidents in this zone: 4% to 8%.</li> </ul>	<ul> <li>Uses to Prohibit:</li> <li>Major shopping centers, theaters., meeting halls and other assembly facilities</li> <li>Children's schools, large daycare centers, hospitals, nursing homes.</li> <li>Stadiums, group recreational uses.</li> </ul>	

4. <u>Safety Zone 4.</u> Zone 4 reflects the Outer Approach/Departure Zone. Below, is a summary of risk and basic compatibility policies listed in the Handbook.

Nature of Risk	Basic Compatibility Policies
Normal Maneuvers:	Normally Allowed Uses:
<ul> <li>Approaching aircraft usually at less than traffic pattern altitude.</li> </ul>	<ul><li>Uses allowed in Zone 3.</li><li>Restaurants, retail, industrial.</li></ul>
Altitude:	Uses to Limit:
Less than 1,000 feet above runway.	<ul> <li>Residential uses to low density.</li> </ul>
Common Accident Types:	Uses to Avoid:
<ul> <li>Arrival: Pilot undershoots runway during an instrument approach, aircraft loses engine on approach, forced landing.</li> </ul>	<ul> <li>High-intensity retail or office buildings.</li> </ul>
<ul> <li>Departure: Mechanical failure on takeoff.</li> </ul>	
Risk Level:	Uses to Prohibit:
<ul> <li>Moderate.</li> </ul>	• Children's schools, large daycare centers,
<ul> <li>Percentage of near-runway accidents in this zone: 2% to 6%.</li> </ul>	<ul><li>hospitals, nursing homes.</li><li>Stadiums, group recreational uses.</li></ul>

5. <u>Safety Zone 6</u>. Zone 6 reflects the Traffic Pattern Zone. Below is a summary of risk and basic compatibility policies listed in the Handbook.

Nature of Risk	Basic Compatibility Policies
Normal Maneuvers: • Aircraft within a regular traffic pattern and pattern entry routes.	Normally Allowed Uses: Residential uses.
Altitude: • Less than 1,000 to 1,500 feet above runway.	<ul> <li>Uses to Limit:</li> <li>Children's schools, large day care centers, hospitals, and nursing homes.</li> <li>Processing and storage of bulk quantities of highly hazardous.</li> </ul>
Common Accident Types: Arrival: Pattern accidents in proximity of airport Departure: Emergency landings.	<ul><li>Uses to Avoid:</li><li>Outdoor stadiums and similar uses with very high intensities.</li></ul>
<ul> <li>Risk Level:</li> <li>Low.</li> <li>Percentage of near-runway accidents in this zone: 18% to 29% (percentage is high because of large area encompassed).</li> </ul>	

6. <u>Factors in establishing Safety Zone Policies</u>. To minimize risks to people and property on the ground, the safety compatibility criteria in **Table I-2**: **Safety Zones Compatibility Criteria** set limits on:

a. Residential Uses. The density of residential development is measured by the number of dwelling units per acre. Consistent with the California Airport Land Use Planning Handbook (2011) guidelines, a greater degree of protection is warranted for residential uses.

**b.** Nonresidential Uses. The intensity of nonresidential development is measured by the number of people per acre concentrated in areas most susceptible to aircraft accidents.

7. <u>Safety Zone Standards for New Development</u>. To minimize risk-sensitive development in high-risk areas around CNO, the safety compatibility of new development shall be evaluated in accordance with the safety policies set forth in this section, including the criteria listed in Table I-1: CNO ALUCP Compatibility Criteria Matrix, Table I-2: Safety Zones Compatibility Criteria and the safety zones depicted on Policy Map I-2: Chino Airport Safety Zones.

#### 8. <u>Safety Zone Policies.</u>

Policy No.	Safety Zone Policies
<b>S</b> 1	<b>Residential Development:</b> New residential development is incompatible within all Safety Zones (1 through 4). Policies S1a and S1b are exceptions to this policy, if applicable.
\$1a	<b>Single-Family Home:</b> The construction of a single-family home on a legal lot of record is allowed in Safety Zones 2, 3, and 4 if the use is permitted by the City of Ontario's land use regulations. See Policy SP2 with regard to development by right.
\$1b	<b>Second-Unit:</b> A second-unit as defined by state law is allowed within Safety Zones 2, 3 and 4 if the use is permitted by the City of Ontario's land use regulations.
\$1c	<b>Family Day Care:</b> In accordance with state law, a family day care home serving 14 or fewer children may be established in any dwelling by the policies of this ALUCP.
\$1d	<b>Residential Mixed-Use Developments:</b> New mixed-use developments will locate the residential component outside of all safety zones.

Policy No.	Safety Zone Policies
\$2	<ul> <li>Occupancy Limits for Nonresidential Development: Table 1-2: Safety Zones Compatibility Criteria indicates the usage intensity (number of people per acre) limit for each safety zone. The usage intensity limits represent the safety criteria for new nonresidential development. The usage intensity limits measure intensity in two forms:</li> <li>Sitewide average intensity which sets intensity limits for the entire project site; and</li> <li>Single-acre intensity which sets intensity limits on any single acre within the project site (see Figure 1-2: Land Use Intensity Calculation example). As a condition of approval, all new nonresidential development within the Safety Zones shall comply with both forms of intensity limits as described further below.</li> </ul>
	<b>Figure I-2: Land Use Intensity Calculation Example</b> In this example, both the sitewide and single-acre intensity of a proposed Research & Development (R&D) / warehouse facility is calculated using the common occupancy load factors [number of square feet per person] information in <b>Table L-2</b> together with project-specific data. The results are then compared with the maximum sitewide and single-acre intensity limits to determine consistency of the project with the safety criteria.
	Single Acre calculations focus on most intense use of the project site       Safet Zona 3 Intensity Limitations Max. Sitewide Average intensity: 250 peoplefacre Max. Single-Acre intensity: 250 peoplefacre Max. Single-Acre intensity: 250 peoplefacre         Research & Development 25,000 sq. ft.       Ommon Occupancy Load Factors Warehouse 1,000 sq. ft. Der person         Warehouse 18,560 sq. ft.       Development 25,000 sq. ft.         Warehouse 66,440 sq. ft.       Total Bidg. sq. ft. = 110,000 sq. ft. per person         Warehouse 66,440 sq. ft.       Safet Zona 3 Intensity Limitations Max Single-Acre area Safet Zona 2 Intensity Limitations         Warehouse 66,440 sq. ft.       Safet Zona 3 Intensity Limitations Max Single Acre area Safet Zona 2 Intensity Limitations         Warehouse 66,440 sq. ft.       Safet Zona 3 Intensity Limitations Max Single Acre area Safet Zona 2 Intensity Limitations         Marchouse 66,440 sq. ft.       Safet Zona 3 Intensity Limitations Max Single Acre area Safet Zona 2 Intensity Limitations         Marchouse 61,440 sq. ft.       Safet Zona 3 Intensity Limitations Max Single Acre Average         Single Acre Average 13 ac per acre Single-Acre area Single Acre Average       Bolow the maximum Maximum Maximum Maximum
S2a	Sitewide Average Intensity is calculated by determining the total number of people expected to be on the site at any given time under normal operating conditions and dividing by the total number of acres of the project site.
S2b	<b>Single-acre Intensity</b> of a proposed development is calculated by determining the total number of people expected to be within any 1.0-acre portion of the site, typically the most intensively used building or part of a building. The 1.0-acre area calculations represent building footprints that are generally rectangular and not elongated in shape or, for buildings larger than 1.0-acre, represent a portion of the building.

Policy No.	Safety	Zone Policies
S2c	Usage Intensity calculations includes all people (e.g., employees, customers/visitors) who may be on the property at any single point in time during normal operating conditions, whether indoors or outdoors. Table 1-2: Safety Zones Compatibility Criteria indicates the normal occupancy load factor (number of square feet per person) and Floor Area Ratio (FAR) for many nonresidential uses. These numbers are interrelated with the intensity limits (number of people per acre) and can be used to calculate the usage intensity of a proposed project (see Figure 1-3: Intensity Limits). Note that the safety criteria are the sitewide and single-acre intensity limits (number of people per acre). The occupancy load factors and FARs are provided as methods for calculating the intensity of a proposed project. 1. Occupancy Load Factors: The occupancy load factors (minimum number of square feet per person) provided in Table I-2: Safety Zones Compatibility Criteria vary from one land use to another. As shown in Figure	Figure 1-3: Intensity Limits The interrelationship between Intensity limit, normal occupancy load factor and Floor Area Ratio (FAR) is indicated in the two examples below. The examples reflect Zone 3 criteria: intensity limit of 100 people per acre, occupancy load factor of 200 square feet per person, and 0.46 FAR. 9 9 9 9 9 9 9 9 9 9 9 9 9
	<ul> <li>I-4, the snewide average usage intensity of a Dividing the number of square feet of per person (occupancy load) for the Adding together the number of people get the sitewide average intensity.</li> <li>Where occupancy load factors a occupancy load factor for a particut to the project, then the number of example, the number of seats and example, the number of seats and example.</li> </ul>	is each component use by the number of square feet at use as indicated in <b>Table I-2</b> ; ole for each component use; and by the total number of acres of the project site to re not indicated in the table or if the assumed lar proposal or component thereof is not applicable f occupants is estimated in another manner – for employees at a restaurant or the number of parking tor an industrial plant.

Policy No.	Safety 2	Cone Policies
S2C	2. Floor Area Ratios (FARs): The allowable FAR Criteria for a particular safety zone and vary fr is calculated as occupying a share of the tot floor area in the project. Mathematically, this r the same as the FAR for the entire building.	R is indicated in <b>Table I-2: Safety Zones Compatibility</b> om one land use to another. Each component use ral project site equal to its percentage of the total means that the FAR for each component use will be
	3. Alternative Intensity Calculations: An alter usage intensity limits is acceptable. For examp requirements may be used together with an a of determining the number of occupants for not be suitable for land uses where many u transportation).	native method for measuring compliance with the ole, a method based upon the City's parking space issumed number of people per vehicle as a means uses that are vehicle oriented (this method would users arrive by transit, bicycle, or other means of
	<b>4. Mixed-Use Development:</b> Each comp development shall comply with <b>Table I-2: Sa</b> ancillary (less than 10% of total building floor a	onent use within a nonresidential mixed-use <b>ifety Zones Compatibility Criteria</b> unless the use is irea).
	5. Ancillary Uses: Up to 10% of the total floor use of another type, including a use with a incompatible in Table I-2: Safety Zones Compa the single-acre intensity calculations (but not the ancillary use is neither:	area of a building may be devoted to an ancillary higher occupancy load factor that is shown as <b>tibility Criteria</b> . Ancillary uses may be excluded from the sitewide average intensity limits) provided that
	<ul> <li>An assembly room having more than 7 to parallel Building Code standards) a</li> </ul>	50 square feet of floor area (this criterion is intended nd a capacity of more than 50 people; nor
	<ul> <li>A children's school (grades K–12), d "incompatible" within the safety zone</li> </ul>	lay care center or other risk-sensitive use that is where the primary use is to be located.
	6. Uncommon Land Use Considerations: If a that is, there would be more floor area per per may consider that information in determinic considering any such exceptions, the local age the use of a building to change over time. A bub but later be converted to a higher-intensite mechanisms to ensure continued compliance with the use of a building to change intensite.	particular development proposal is uncommon- erson and lower usage intensity—the local agency ing the safety compatibility of the proposal. In gency shall also take into account the potential for uilding could have planned low-intensity use initially, y use. Local agency permit language or other
	criteria must be put in place.	Figure I-4: Transferring Usage Intensity
	7. Parcels within Multiple Safety Zones: For the purposes of evaluating consistency with the usage intensity criteria set forth in Table I-2: Safety Zones	An example of transferring usage intensity to the less restrictive safety zone is provided below.
	Compatibility Criteria, any parcel that is	Zone 3 intensity limit: 100 people per acre
	split by safety zone boundaries shall be considered as if it were multiple parcels	Zone 4 intensity limit: 160 people per acre
	divided at the safety zone boundary line. However, the intensity of nonresidential	<b>Proposed intensity in Zone 3</b> : 80 people per acre
	development allowed within the more restricted portion of the parcel can (and	Proposed intensity in Zone 4: 100 people per acre
	is encouraged to) be transferred to the less restricted portion. This full or partial reallocation of intensity is permitted even if the resulting intensity in the less restricted area would then exceed the limits which would otherwise apply within that safety zone (see Figure 1-4).	* The proposed intensity for Zone 3 (80 people per acre) is encouraged to be transferred to Zone 4 for a total of 180 people per acre, even if it exceeds the Zone 4 intensity limit of 160 people per acre.

Policy No.	Safety Zone Policies
S3	Land Use Event Exceptions: The City of Ontario may make exceptions for "conditional" or "incompatible" land uses associated with rare special events (e.g., an air show at the airport) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.
S4	Land Uses of Special Concern: Certain types of land uses represent special safety concerns irrespective of the number of people associated with those uses. Table 1-2: Safety Zones Compatibility Criteria indicates the criteria applicable to these uses. In some cases, these uses are not allowed in portions of the safety zones regardless of the number of occupants associated with the use. In other instances, these uses should be avoided—i.e., allowed only if an alternate site outside of the safety zone would not work. When allowed, special measures should be taken to minimize hazards to the facility and occupants if the facility were to be struck by an aircraft. Land uses of particular concern and the nature of the concern are listed policies S4a through S4c.
S4a	<ul> <li>Land Uses Having Vulnerable Occupants: These land uses are ones in which the majority of occupants are children, elderly, and/or disabled—people who have reduced effective mobility or may be unable to respond to emergency situations. These uses include:</li> <li>Children's schools (grades K-12).</li> </ul>
	<ul> <li>Day care centers (facilities with 15 or more children, as defined in the California Health and Safety Code).</li> </ul>
	<ul> <li>Hospitals, health care centers, and similar facilities, especially where patients remain overnight, nursing homes and inmate facilities.</li> </ul>
S4b	Hazardous Materials Storage: Materials that are flammable, explosive, corrosive, or toxic constitute special safety compatibility concerns to the extent that an aircraft accident could cause release of the materials and thereby pose dangers to people and property in the vicinity. Facilities in this category include:
	<ul> <li>Facilities such as oil refineries and chemical plants that manufacture, process, and/or store bulk quantities (tank capacities greater than 6,000 gallons) of hazardous materials generally for shipment elsewhere.</li> </ul>
	<ul> <li>Facilities associated with otherwise compatible land uses where hazardous materials are stored in smaller quantities primarily for on-site use (tank capacities greater than 6,000 gallons).</li> </ul>
S4c	<b>Critical Community Infrastructure:</b> The damage or destruction of public infrastructure facilities which would cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility. Among these facilities are:
	<ul> <li>Emergency services facilities such as police and fire stations.</li> </ul>
	<ul> <li>Emergency communications facilities, power plants, and other utilities.</li> </ul>
\$5	<b>Avigation Easements:</b> The City of Ontario shall require dedication of an avigation easement as a condition for approval of all proposed development situated off-airport within Safety Zones 1 through 4 in accordance with Policy SP1. The Safety Zones and this policy affect only the City of Ontario.

Policy No.	Safety Zone Policies
<b>S6</b>	Safety Zone 1 (Runway Protection Zone):
	1. The developer and airport owner must coordinate with the FAA for development proposals within the RPZ (either new or reconfigured). Land uses requiring airport/FAA coordination include:
	<ul> <li>Buildings and structures.</li> </ul>
	<ul> <li>Recreational uses (e.g., golf courses, sports fields, amusement parks, other places of public assembly).</li> </ul>
	<ul> <li>Transportation facilities (e.g., rail, public roads/highways, vehicular parking).</li> </ul>
	<ul> <li>Fuel storage facilities (above and below ground).</li> </ul>
	<ul> <li>Hazardous material storage (above and below ground).</li> </ul>
	<ul> <li>Wastewater treatment facilities.</li> </ul>
	<ul> <li>Above ground utility infrastructure (e.g., electrical substations), including any type of solar panel installations.</li> </ul>
	2. The following uses shall be prohibited within Safety Zone 1 (RPZ):
	<ul> <li>All structures except ones with location set by aeronautical function.</li> </ul>
	<ul> <li>All assemblages of people (more than one).</li> </ul>
	<ul> <li>Hazards to flight such as:</li> </ul>
	<ul> <li>Objects exceeding 14 CFR Part 77 height limits.</li> </ul>
	<ul> <li>Visual hazards including but not limited to lights, sources of glare, and sources of dust, steam, or smoke.</li> </ul>
	<ul> <li>Electronic hazards including but not limited to ones that may cause interference with aircraft communications or navigation.</li> </ul>
	<ul> <li>Land uses and features that attract hazardous wildlife (i.e., Birds) including but not limited to aboveground stormwater facilities, open ponds, and landscaping that provides a food source, shelter, or roosting.</li> </ul>
S7	<b>Open Land:</b> In the event that a light aircraft is forced to land away from an airport, the risks to the people on board and on the ground can be best minimized by providing as much open land area as possible within the airport vicinity. This concept is based upon the fact that the majority of light aircraft accidents that occur away from an airport runway are controlled emergency landings in which the pilot has reasonable opportunity to guide the aircraft and select the landing site. Open land provides opportunities for a controlled landing in the event of an emergency. A percentage of Open land is required for all Safety Zones and are outlined in Table I-1: CNO ALUCP Compatibility Criteria Matrix.
\$7a	<b>Open Land Required Dimensions:</b> Open land shall have minimum dimension of at least 75 feet wide by 300 feet long (approximately 0.5-acre in size).

Policy No.	Safety Zone Policies
\$7b	Open Land Criteria:
	1. Open land shall be free of most structures and other major obstacles such as walls, large trees, (greater than 4 inches in diameter, measured 4 feet above the ground), poles, and overhead wires. Landscaping plans for open space areas should preclude large trees that would exceed the 4-inch diameter criterion at maturity. However, landscaping plans could allow for trees and shrubs that exceed 4 inches in diameter at a height of 4 feet at maturity for areas along the edge of open space areas where the vegetation abuts a wall or other similar feature, provided that the vegetation is planted within 4 feet of the wall.
	2. Roads and automobile parking lots are acceptable as open land areas if the criteria for Policies S7a and S7b are met. Policy Map I-2a: Chino Airport Open Land Streets identifies three streets that will be designed to satisfy the Open Land criteria. The streets will be 75 to 84 feet wide with no medians. Light poles and trees will be designed to maintain a clear width of about 75 feet. The light poles will be spaced 250 feet and staggered on the opposite side of the street; therefore, satisfying the 75-foot by 300-foot dimensional requirements for Open Land. A detailed review of proposed landscaping and lighting plans along Merrill Avenue within CNO Safety Zone 1 (RPZ) will be required to ensure that Zone 1 remains clear of permanent aboveground objects.
	<b>3.</b> Open land requirements for each Safety Zone shall be applied with respect to the entire zone. Individual parcels may be too small to accommodate the minimum size open area requirement. Consequently, the identification of open land areas shall be initially accomplished at the general plan or specific plan level or as part of large (10 acres or more) development projects.
	4. Clustering of development and providing contiguous landscaped (e.g., low-growing ground cover) and parking areas is encouraged as a means of increasing the size of open land areas. Clustering of development should be located a maximum distance from the extended runway centerline.

**B.** Noise. The purpose of noise compatibility policies is to avoid the establishment of noisesensitive land uses in the portions of the CNO AIA that are exposed to significant levels of aircraft noise. For compatibility planning purposes, the noise contours reflect the County's aircraft activity forecast of 209,400 annual operations for 2025 is considered to be representative of the likely maximum number of aircraft operations that could be realized over the 20-year forecast period (2039) and are shown in **Figure I-5: Chino CNEL Contours (2025)**.



For purposes of airport land use compatibility planning, Caltrans advises that 60 dB CNEL is suitable for new residential development and other noise sensitive land uses around most airports.

**Figure I-5: Chino CNEL Contours (2025)** shows that only the 55 dB CNEL contour affects lands within the City of Ontario. Since the 60 dB CNEL does not extend into the City of Ontario no significant impacts are anticipated and therefore no noise policies and criteria are included within the CNO ALUCP.

**C. Airspace Protection.** Airspace protection compatibility policies seek to prevent creation of land use features that can be hazards to aircraft in flight and have the potential for causing an aircraft accident to occur. Such hazards may be physical, visual, or electronic.

1. <u>Factors in establishing Airspace Protection Zones.</u> The principal factors considered in setting the airspace protection zones are:

a. Federal Regulations. Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, set the requirements for notice to the Federal Aviation Administration (FAA) of certain proposed construction or alteration projects (Subpart B, Notice of Construction or Alteration) and establish standards for determining obstructions to navigable airspace (Subpart C, Obstruction Standards).

**b.** CNO Part 77. The 14 CFR Part 77 airspace surfaces included in the 2003 Chino Airport Layout Plan was utilized to establish the allowable heights of future uses within the vicinity of Chino airport (see Figure I-6: Chino Part 77 Airspace Surfaces (2003)).



2. <u>Factors in establishing Airspace Protection Policies.</u> The factors considered in setting the airspace protection policies in this section are described below.

a. Federal and State Regulations. The airspace protection policies outlined in this section are based upon and intended to help implement the regulations enacted by the FAA and the State of California. State airspace protection standards mostly mirror those of the FAA. A key difference is that state law gives the California Department of Transportation, Division of Aeronautics, and local agencies the authority to enforce the standards.

**b.** Flight Hazards. The FAA has well-defined standards by which potential hazards to flight, especially airspace obstructions, can be assessed. However, the FAA has no authority to prevent creation of such hazards. That authority rests with state and local governments. There are three categories of flight hazards: physical, visual, and electronic.

(1) **Structure Heights** — Height of structures and other objects situated near the airport are a primary determinant of physical hazards to the airport airspace.

(2) Land Use — Land use features that have the potential to attract birds and certain other wildlife to the airport area also need to be evaluated as a form of physical hazard.

(3) **Visual Hazards** — Visual hazards of concern include certain types of lights, sources of glare, and sources of dust, steam, thermal plumes, or smoke.

(4) **Electrical Hazards** — Electronic hazards are ones that may cause interference with aircraft communications or navigation.

c. Airspace Obstructions. The criteria for determining the acceptability of a project with respect to height are based upon the standards set forth in: Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, Subpart C, Obstruction Standards; the United States Standard for Terminal Instrument Procedures (TERPS); the One-Engine Inoperative (OEI) obstacle identification surface and other applicable airport design standards published by the FAA.

d. Local Topography. The topography underlying the airport's airspace surfaces is a significant factor in determining the allowable height of a structure. The terrain north of CNO slopes upwards towards the San Gabriel Mountains, thereby reducing the allowable heights of objects in those areas.

3. <u>Airspace Protection Zones for CNO.</u> The airspace protection zones depicted in **Policy Map I-3: Chino Airspace Protection Zones** were prepared for CNO in accordance with Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace.

a. FAA Height Notification Surface. Established in accordance with FAR Part 77, Subpart B, this airspace surface extends outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the airport runways.

**b.** Airspace Obstruction Surfaces. Includes the controlling portions of the FAR Part 77, Subpart C, extending out to a point where these surfaces terminate at the outer limits of the FAA Height Notification Surface. Objects which penetrate these surfaces are subject to airspace evaluation by the FAA. Objects which penetrate the Approach/Departure Surfaces which extend beyond the FAA Height Notification Surface require evaluation by the FAA.

c. Allowable Heights. To determine the allowable heights of future objects, the underlying ground elevation is compared with the elevation of the controlling portions of the FAR Part 77, TERPS, and OEI surfaces. These are depicted as color bands in **Policy Map I-3: Chino Airspace Protection Zones**, each color band represents a range of distance, measured in vertical feet, between the ground and overlying surface.

4. <u>Airspace Protection Standards for New Development.</u> The airspace protection compatibility of proposed land uses within the AIA of CNO shall be evaluated in accordance with the policies in this section, including the existing airspace protection surfaces depicted in **Policy Map I-3: Chino Airspace Protection Zones**.

5. <u>Airspace Protection Policies.</u>

Policy No.	Airspace Protection Policies
A1	<b>FAA Height Notification Surface:</b> Except as provided in Policy A2b, if a project contains proposed structures or other objects that would penetrate the FAA Height Notification Surface for CNO, the project proponent should submit notification of the proposal to the FAA, as required by the provisions of FAR Part 77, Subpart B, and by the California Public Utilities Code, Sections 21658 and 21659. The FAA will conduct an "aeronautical study" of the object(s) and determine whether the object(s) would be of a height that would constitute a hazard to air navigation. A copy of the completed FAR Part 77 notification form submitted to the FAA and the resulting FAA aeronautical study findings should be supplied to the City by the project proponent. The results of the FAA aeronautical study shall be utilized when conducting compatibility reviews of the proposed project. The FAA notification requirements apply to the following:
Ala	<b>Penetrations to the FAA Height Notification Surface:</b> With limited exceptions, the FAA requires notification for all objects which penetrate the FAA Height Notification Surface, including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes.
A1b	<b>Structures in Excess of 200 feet:</b> The FAA requires that it be notified about any proposal to construct or alter a structure that would be taller than 200 feet above the ground level regardless of the structure's proximity to CNO or any other airport.
A1c	<b>FAR Part 77 Notification:</b> FAA requires project proponents to submit notification of the proposal where required by the provisions of FAR Part 77, and by the California Public Utilities Code, Sections 21658 and 21659. Refer to the FAA notification requirements and online submittal process of Form 7460-1, Notice of Proposed Construction or Alteration.
A2	Airspace Obstruction Surfaces: Except as provided in Policy A2a, no object should have a height
	that would result in a penetration of the Airspace Obstruction Surface depicted for CNO. Any object that penetrates the Airspace Obstruction Surface shall satisfy the conditions set forth in Policy A2a. These requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes.
A2a	that would result in a penetration of the Airspace Obstruction Surface depicted for CNO. Any object that penetrates the Airspace Obstruction Surface shall satisfy the conditions set forth in Policy A2a. These requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes. <b>Airspace Obstacle Criteria and Review Process:</b> Except as indicated in Policy A2b, a proposed object having a height that penetrates CNO's airspace obstruction surfaces should be allowed only if all of the following apply:
A2a	<ul> <li>that would result in a penetration of the Airspace Obstruction Surface depicted for CNO. Any object that penetrates the Airspace Obstruction Surface shall satisfy the conditions set forth in Policy A2a. These requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes.</li> <li>Airspace Obstacle Criteria and Review Process: Except as indicated in Policy A2b, a proposed object having a height that penetrates CNO's airspace obstruction surfaces should be allowed only if all of the following apply:</li> <li>1. The FAA conducts an aeronautical study of the proposed object and determines that the object would not be a hazard to air navigation.</li> </ul>
A2a	<ul> <li>that would result in a penetration of the Airspace Obstruction Surface depicted for CNO. Any object that penetrates the Airspace Obstruction Surface shall satisfy the conditions set forth in Policy A2a. These requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes.</li> <li>Airspace Obstacle Criteria and Review Process: Except as indicated in Policy A2b, a proposed object having a height that penetrates CNO's airspace obstruction surfaces should be allowed only if all of the following apply:</li> <li>1. The FAA conducts an aeronautical study of the proposed object and determines that the object would not be a hazard to air navigation.</li> <li>2. FAA or other expert analysis conducted under the auspices of the airport owner, concludes that, despite being an airspace obstruction, the object would not cause any of the following:</li> </ul>
A2a	<ul> <li>that would result in a penetration of the Airspace Obstruction Surface depicted for CNO. Any object that penetrates the Airspace Obstruction Surface shall satisfy the conditions set forth in Policy A2a. These requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes.</li> <li>Airspace Obstacle Criteria and Review Process: Except as indicated in Policy A2b, a proposed object having a height that penetrates CNO's airspace obstruction surfaces should be allowed only if all of the following apply:</li> <li>1. The FAA conducts an aeronautical study of the proposed object and determines that the object would not be a hazard to air navigation.</li> <li>2. FAA or other expert analysis conducted under the auspices of the airport owner, concludes that, despite being an airspace obstruction, the object would not cause any of the following:</li> <li>An increase in the ceiling or visibility minimums of the airport for an existing or planned instrument procedure (a planned procedure is one that is formally on file with the FAA);</li> </ul>
A2a	<ul> <li>that would result in a penetration of the Airspace Obstruction Surface depicted for CNO. Any object that penetrates the Airspace Obstruction Surface shall satisfy the conditions set forth in Policy A2a. These requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes.</li> <li>Airspace Obstacle Criteria and Review Process: Except as indicated in Policy A2b, a proposed object having a height that penetrates CNO's airspace obstruction surfaces should be allowed only if all of the following apply:</li> <li>1. The FAA conducts an aeronautical study of the proposed object and determines that the object would not be a hazard to air navigation.</li> <li>2. FAA or other expert analysis conducted under the auspices of the airport owner, concludes that, despite being an airspace obstruction, the object would not cause any of the following:</li> <li>An increase in the ceiling or visibility minimums of the airport for an existing or planned instrument procedure (a planned procedure is one that is formally on file with the FAA);</li> <li>A reduction of the established operational efficiency and capacity of the airport, such as by causing the usable length of the runway to be reduced; or</li> </ul>
A2a	<ul> <li>that would result in a penetration of the Airspace Obstruction Surface depicted for CNO. Any object that penetrates the Airspace Obstruction Surface shall satisfy the conditions set forth in Policy A2a. These requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes.</li> <li>Airspace Obstacle Criteria and Review Process: Except as indicated in Policy A2b, a proposed object having a height that penetrates CNO's airspace obstruction surfaces should be allowed only if all of the following apply: <ol> <li>The FAA conducts an aeronautical study of the proposed object and determines that the object would not be a hazard to air navigation.</li> <li>FAA or other expert analysis conducted under the auspices of the airport owner, concludes that, despite being an airspace obstruction, the object would not cause any of the following: <ul> <li>An increase in the ceiling or visibility minimums of the airport for an existing or planned instrument procedure (a planned procedure is one that is formally on file with the FAA);</li> <li>A reduction of the established operational efficiency and capacity of the airport, such as by causing the usable length of the runway to be reduced; or</li> <li>A conflict with the visual flight rules (VFR) airspace used for the airport traffic pattern or en route navigation to and from the airport.</li> </ul> </li> </ol></li></ul>

Policy No.	Airspace Protection Policies
	4. An avigation easement is dedicated to the owner of the airport.
	5. The proposed project complies with all policies of the CNO ALUCP.
Α3	<ul> <li>Flight Hazards: Land uses that may cause visual, electronic, or wildlife hazards, particularly bird strike hazards, to aircraft in flight or taking off or landing at the airport should be prohibited within the AIA consistent with FAA rules and regulations. To resolve any uncertainties with regard to the significance of flight hazards, local agencies should consult with the FAA, California Division of Aeronautics, and/or CNO officials. Specific characteristics to be avoided include:</li> <li>Sources of glare (such as from mirrored or other highly reflective buildings or building features) or bright lights (including search lights and laser light displays).</li> <li>Distracting lights that could be mistaken for airport lights.</li> <li>Sources of steam or other emissions that cause thermal plumes or other forms of unstable air.</li> <li>Sources of electrical interference with aircraft communications or navigation.</li> <li>Any proposed use that creates an increased attraction for wildlife and that is inconsistent with FAA rules and regulations including, but not limited to FAA Advisory Circulars 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports and 150/5200-34A, Construction or Establishment of Landfills near Public Airports. Of particular concern are landfills and certain recreational or agricultural uses that attract large flocks of birds which pose bird strike hazards to aircraft in flight.</li> </ul>
Α4	<b>Avigation Easements:</b> An avigation easement shall be required as a condition of approval for proposed development that penetrates the Airspace Obstruction Surfaces (see Policy A2a).
А5	<b>Hazardous Wildlife Attractants on or Near Airports:</b> Wildlife can pose hazards to aircraft operations; collisions or "strikes" with wildlife can cause damage to or destroy aircraft and result in injuries or fatalities to air travelers and those on the ground. FAA strike records indicate that most wildlife strikes occur in the immediate airport vicinity during aircraft approach or departure at altitudes of less than 3,500 feet above ground level (AGL).
Α5α	<ul> <li>Caltrans Guidance: Caltrans completed a Wildlife Hazard Assessment at CNO in 2014. Wildlife attractants identified in the airport vicinity included open water basins, golf courses, and agricultural operations. Hazardous wildlife identified on and near the airport included: raptors, ground squirrels (because they attract raptors), gulls, blackbirds and starlings, coyotes, crows, doves and pigeons, waterfowl, and shorebirds. To prevent the creation of new habitat within on or near CNO, new development shall be subject to the following:         <ul> <li>A Qualified Airport Wildlife Biologist (QAWB) shall review landscaping plans to ensure that the proposed materials will not provide food, nesting opportunities, shelter, or roosting opportunities for potentially hazardous wildlife.</li> <li>A QAWB shall review proposed construction plans for their potential to create temporary or permanent wildlife attractants.</li> </ul> </li> </ul>
A5b	<b>Federal Guidance:</b> Consistent with state and federal guidance, any proposed land use that creates an increased attraction for wildlife and that is inconsistent with FAA rules and regulations, including but not limited to FAA AC 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports, and 150/5200-34A, Construction or Establishment of Landfills near Public Airports, should be avoided within the "critical zones". For CNO, the critical zone extends 10,000 feet beyond aircraft movement areas and 5 miles from the approach/departure surfaces. The following is list of land uses known to attract potentially hazardous wildlife within critical zones and should be avoided:

Policy No.	Airspace Protection Policies
	<ul> <li>Landfills and waste management facilities (see also AC 150/5200-34A, Construction or Establishment of Landfills near Public Airports).</li> </ul>
	<ul> <li>Stormwater management facilities that create open water.</li> </ul>
	<ul> <li>Wastewater treatment facilities.</li> </ul>
	<ul> <li>Wetlands and wetland mitigation sites.</li> </ul>
	<ul> <li>Agricultural/aquacultural operations.</li> </ul>
	<ul> <li>Parks and golf courses.</li> </ul>
	<ul> <li>Resource mitigation sites.</li> </ul>
	If land uses that are known to attract potentially hazardous wildlife are allowed within the airport influence area by right, the land use and its features should be modified to reduce wildlife hazards or mitigate known hazards. Sample mitigation/design measures include those associated with stormwater management facilities and landscape design.
A5c	<b>Stormwater Management Facilities:</b> The FAA identifies stormwater management facilities as one of the greatest attractants to hazardous wildlife. Many species are attracted to open water features and associated vegetation that offers water, food, and shelter. New stormwater management facilities located within the AIA should be designed to avoid the creation of open water and habitat and incorporate the following criteria:
	1. New detention basins should be designed to drain completely within a maximum 48-hour period following design storm event and remain totally dry between storm events.
	Exposed surface water features should include one of the recommended design measures:
	<ul> <li>Floating covers, bird balls, netting, or overhead wires should be installed to deter wildlife. The deterrent should be selected based on pond size and the type of species to be discouraged;</li> </ul>
	<ul> <li>Steep-sided, rip-rap lined, narrow, linearly shaped water detention basin (i.e., 1:1 slopes) should be provided; and</li> </ul>
	<ul> <li>Vegetation should not be provided because it can provide food or cover for hazardous wildlife.</li> </ul>
	2. Stormwater management plans located within the CNO AIA shall be reviewed by an FAA- qualified Airport Wildlife Biologist.
	<b>3.</b> Landscape designs for proposed projects located in the CNO AIA should be reviewed by an FAA-qualified Airport Wildlife Biologist.

**D. Overflight.** Noise from individual aircraft operations, especially by comparatively loud aircraft, can be intrusive and annoying in locations beyond the limits of the noise impacts. Sensitivity to aircraft overflights varies from one person to another. The purpose of overflight compatibility policies is to help notify people about the presence of overflights near airports so that they can make more informed decisions regarding acquisition or lease of property in the affected areas.

### 1. Factors Considered in Establishing Overflight Zones.

a. State Law. State statutes (BPC Section 11010 and CC Sections 1102.6, 1103.4, and 1353) define an AIA as "the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission."

**b.** Measures of Overflight Exposure. The loudness of individual aircraft noise events is a key determinant of where airport proximity and aircraft overflight notification are

warranted. The FAA has determined that overflight exposure is not significant where aircraft are flying at an altitude of 3,000 feet or more above ground level. **Figure 1-7** presents the primary aircraft traffic patterns in blue, based on published airport information. The red and orange lines represent flight patterns captured by radar data from November 2015. On this particular day, aircraft were practicing touch-and-goes (closed loop patterns) from Runway 26R, 26L and Runway 21. Safety Zone 4 encompasses areas where aircraft make a turn from base to final when landing on Runway 21. Also, Safety Zone 6 is routinely overflown by aircraft.



### 2. <u>Factors Considered in Setting Overflight Compatibility Criteria.</u>

a. Limitations of Local Agency Authority over Existing Uses. To be most effective, overflight policies should apply to transactions involving existing land uses, not just future development. However, local agencies have little authority to set requirements for existing development. The intent of this policy is to define, on an advisory basis, the boundaries within which required real estate transfer disclosure under state law is appropriate. Implementing the real estate transaction disclosure requirement is the responsibility of the property owner and real estate agent. The local agency is responsible only for providing a map to a property owner or real estate agent that defines the areas within which the real estate disclosure requirement should be applied.

**b.** Limitations of California Real Estate Transaction Disclosure Law. State law applies to existing development, but not to all transactions. Specifically, California state statutes (BPC Section11010 and CC Sections 1102.6, 1103.4, and 1353) require that, as part of many residential real estate transactions, information be disclosed regarding whether the property is situated within an AIA. The Business and Professions Code applies the disclosure requirement to the sale or lease of newly subdivided lands and condominium conversions and to the sale of
certain existing residential property. The Civil Code applies the disclosure requirement to existing residential property transfers only when certain natural conditions (earthquake, fire, or flood hazards) warrant disclosure.

c. Need for Continuity of Notification to Future Property Owners and Tenants. To the extent that this Compatibility Plan sets notification requirements for new development, the policy should ensure that the notification runs with the land and is provided to prospective future owners and tenants.

d. Inappropriateness of Avigation Easement Dedication Solely for Buyer Awareness Purposes. Avigation easements involve conveyance of property rights from the property owner to the party owning the easement and are thus best suited to locations where land use restrictions for safety or airspace protection purposes are necessary.

3. <u>Overflight Notification Zones for CNO.</u> The boundaries of the overflight notification zones around CNO are shown on **Policy Map I-4: Chino Overflight Notification Zones** and include:

a. Avigation Easement Dedication. The boundary identifies the high-risk, and critical airspace protection areas of CNO. Although not strictly an overflight notification boundary, the Avigation Easement Dedication boundary is established in accordance with Policy SP1 and reflected on **Policy Map 1-4**.

**b.** Recorded Overflight Notification. The boundary identifies the primary overflight area for the airport. The policy boundary matches Safety Zone 6 depicted on Policy Map I-4.

c. Real Estate Transaction Disclosure. The boundary reflects the CNO AIA and matches the outer boundary of the FAR Part 77 conical surface of the airport.

4. <u>Overflight Policies.</u> Unlike the function of safety and airspace protection compatibility policies, the overflight compatibility policies set forth in this section do not restrict the manner in which land can be developed or used. The policies in this section serve only to establish the language and recommended geographic coverage for notification about airport proximity and aircraft overflights for new development and with certain real estate transactions involving existing development.

Policy No.	Airspace Protection Policies
01	<b>Recorded Overflight Notification:</b> The City of Ontario shall require the recording of an overflight notification running with the land as a condition for approval of new residential development that falls within Safety Zone 6, as depicted in Policy Map I-4. Other conditions include:
01a	<b>Notification Language:</b> The overflight notification should contain language dictated by state law with regard to real estate transaction disclosure (see Policy O2a).
O1b	<b>Property Deed Recording:</b> The overflight notification should be evident to future purchasers of the property by appearing on the property deed.
O1c	<b>Avigation Easement Exception:</b> A separate recorded overflight notification is not required where an avigation easement is provided in accordance with Policy SP1.
O1d	<b>Nonresidential Exception:</b> Recording of an overflight notification is not required for nonresidential development unless the project is a mixed-use development containing residential uses on the same property.

Policy No.	Airspace Protection Policies
02	<b>Real Estate Transaction Disclosure:</b> Airport proximity disclosure information should be provided in accordance with state law (Business and Professions Code Section 11010 and Civil Code Sections 1102.6, 1103.4, and 1353. See Section 6.4.4 (b) and Appendix A for information on these laws.
Ο2α	<b>Disclosure Language:</b> State Law provides the following disclosure language: <b>NOTICE OF AIRPORT IN VICINITY:</b> This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.
O2b	<b>Airport Influence Area:</b> The airport proximity disclosure is required within AIA as identified on Policy Map I-4.

# **E. Special Compatibility Policies.** These policies are intended to address unique land use concerns.

Policy No.	Special Compatibility Policies
SP1	<b>Avigation Easement Dedication:</b> An avigation easement should be dedicated to the owner/operator of CNO for new development as specified in Policies SP1a and SP1b.
SP1a	<ul> <li>Avigation Easement Dedication Requirements: Within portions of the AIA inside the City of Ontario, avigation easement dedication shall be required for new development requiring discretionary as described below. Policy Map I-4 depicts the locations where an avigation easement dedication would be appropriate.</li> <li>Safety Zones: All new development within Safety Zones 1, through 4 as depicted on Policy Map I-2.</li> </ul>
SP1b	<ol> <li>Avigation Easement Purpose: The avigation easement should do the following:         <ol> <li>Right of Flight: Provide the right of flight in the airspace above the property.</li> </ol> </li> <li>Noise Impacts: Allow the generation of noise and other impacts associated with aircraft overflight.</li> <li>Physical Hazards: Restrict the height of structures, trees, and other objects in accordance with the policies in Section L.01.003.C and the airspace protection surfaces depicted on Policy Map I-2.</li> <li>Obstruction Marking: Permit access to the property, with appropriate advance notice, for the removal or aeronautical marking of objects exceeding the established height limit.</li> <li>Other Airspace Hazards: Prohibit electrical interference, glare, and other potential hazards to flight from being created on the property.</li> </ol>
SP2	<b>Nonconforming Uses:</b> The policies within the CNO ALUCP do not apply to existing land uses even if those uses are not in conformance with the compatibility criteria set forth in this Compatibility Plan. However, proposed changes to existing uses that would change or result in increased nonconformity with the compatibility criteria are subject to the provisions of the ALUCP. Specifically, proposed changes to existing nonconforming uses (including a parcel or building) are limited as specified in SP2a through Sp2e, below.
SP2a	<b>Residential uses:</b> A nonconforming residential land use may be continued, sold, leased, or rented without restriction or review.

Policy No.	Special Compatibility Policies
SP2b	<b>Nonconforming Single-family:</b> A nonconforming single-family dwelling may be maintained, remodeled, reconstructed, or expanded in size. The lot line of an existing single-family residential parcel may be adjusted. Also, a new single-family residence may be constructed on an existing lot. The above noted property improvements may occur if improvements do not increase the number of units and lot line adjustments do not result in allowing for additional dwelling units. Examples include:
	1. Any remodeling, reconstruction, or expansion must not increase the number of dwelling units. For example, a bedroom could be added to an existing residence, but an additional dwelling unit could not be built on the parcel unless that unit is a secondary dwelling unit as defined by state and local laws.
	2. A single-family residential parcel may not be divided for the purpose of allowing additional dwellings to be constructed.
SP2c	<b>Nonconforming Multi-family (&gt; 8 du/ac):</b> Nonconforming multi-family residential dwelling units may be maintained, remodeled, or reconstructed. The size of individual dwelling units may be increased, but additional dwelling units may not be added.
SP2d	<b>Nonresidential uses:</b> A nonconforming, nonresidential use may be continued, sold, leased, or rented without restriction or review. Nonconforming, nonresidential facilities may be maintained, altered, or, if required by state law, reconstructed. However, any such work:
	1. Should not result in expansion of either the portion of the site devoted to the nonconforming use or the floor area of the buildings; and
	2. Should not result in an increase in the usage intensity (the number of people per acre) above the levels existing at the time of approval of the CNO ALUCP.
SP2e	<b>Schools:</b> Children's schools (including grades K-12, day care centers with more than 14 children, and school libraries) may be continued, reconstructed (see Policy SP5), expanded with the following restrictions per State Law:
	1. Land acquisition for new schools or expansion of existing schools is not permitted in any safety zone.
	2. Replacement or expansion of buildings at existing schools is also not allowed in any safety zone. This limitation does not preclude work required for normal maintenance or repair.
SP3	<b>Reconstruction of Nonconforming Uses:</b> An existing nonconforming building, structure, or use that has been partially or completely destroyed as the result of a fire, flood or natural disaster may be rebuilt under the conditions listed in Policies SP3a through SP3c so long as it does not violate local ordinances. The requirements listed in this policy do not restrict normal maintenance and repairs.
SP3a	<b>Residential:</b> Nonconforming residential uses may be rebuilt provided that the reconstruction does not result in more dwelling units than existed on the parcel at the time of the damage. Addition of a secondary dwelling unit to a single-family residence is permitted if in accordance with state law and local zoning regulations.
SP3b	<b>Nonresidential:</b> A nonconforming nonresidential development may be rebuilt provided that the reconstruction does not increase the floor area of the previous structure or result in an increased intensity of use (i.e., more people per acre).
SP3c	<b>Reconstruction Requirements:</b> The reconstruction of nonconforming uses listed in Policies SP3a and SP3b should comply with the following requirements:
	1. A permit to rebuild the structure should be obtained by the local agency within twenty-four (24) months of the date the damage occurred.
	2. The property should be required to dedicate an avigation easement to the airport owner, if required under Policy SP1.
	<b>3.</b> The new structure should comply with FAR Part 77, TERPS, and applicable airport obstruction clearance standards published by the FAA.

# I.01.005: Evaluating Land Use Consistency

A. Evaluating Compatibility of Proposed Development. The compatibility of proposed projects within the CNO AIA shall be evaluated in accordance with the specific safety, airspace protection, overflight policies, and special compatibility policies set forth in Section L.01.003 including the criteria listed in Table I-1: CNO ALUCP Compatibility Criteria Matrix and Table I-2: Safety Zones Compatibility Criteria, and Policy Maps I-1 through I-4.

### **B.** Evaluation Tools.

1. <u>Safety Zone Criteria Table</u>. **Table I-2** list general land use categories and indicate each use as being either "normally compatible," "conditionally compatible," or "incompatible" depending upon the safety zone in which it is located. When evaluating a proposed development, each land use component of a project shall be evaluated as separate developments and must meet the criteria for the respective land use category.

# 2. <u>Evaluation Considerations.</u>

a. Land uses not specifically listed in **Table I-2** shall be evaluated using the criteria for similar listed uses.

**b.** Multiple land use categories and the compatibility criteria associated with them may apply to a single project (e.g., mixed-use developments). Each land use component shall individually satisfy the criteria for the respective land use category in Table I-2.

### 3. Land Use Compatibility Determinations.

**a.** Normally Compatible. Normally Compatible means that common examples of the use are compatible with the airport; uncommon examples of the use may require review to ensure compliance with compatibility criteria.

**b.** Conditionally Compatible. Conditionally Compatible means that the use is compatible if the listed conditions are met.

c. Incompatible. Incompatible means that the use should not be permitted under any circumstances.

### I.01.006: Criteria Tables and Policy Maps

**A. Criteria Tables.** The compatibility tables at the end of this chapter provide the following information:

1. <u>Table I-1: CNO ALUCP Compatibility Criteria Matrix.</u> The Compatibility Criteria table provides a comprehensive list of open land percentages, people per acre limits and other relevant criteria summarized for each safety zone.

2. <u>Table I-2: Safety Zones Compatibility Criteria.</u> The safety criteria table provides a list of land use categories and identifies the acceptability of specific land uses within each of the five safety zones. Intensity limits for nonresidential uses (i.e., maximum number of people per acre) and other safety considerations within each safety zone are also noted.

**B.** Policy Map I-1 (Chino Airport Influence Area). The AIA boundary encompasses the geographic extents of all the compatibility factors: safety, noise, airspace protection, and overflight.

C. Policy Map I-2 (Chino Airport Safety Zones). This policy map displays a single set of safety zones reflecting the existing runway configurations. The safety zones for are based upon the generic safety zones provided in the California Airport Land Use Planning Handbook.

**D.** Policy Map I-2a (Chino Airport Open Land Streets). This policy map identifies three streets that will be designed to satisfy the Open Land criteria.

**E. Policy Map I-3 (Chino Airspace Protection Zones).** The airspace protection zones are prepared in accordance with Federal Aviation Regulation Part 77, the United States Standard for Terminal Instrument Procedures (TERPS), and applicable obstruction clearance standards published by the Federal Aviation Administration. The airspace surfaces reflect the existing runway configurations.

**F. Policy Map I-4 (Chino Overflight Notification Zones).** This policy map identifies the overflight notification zones. The overflight notification zones also encompass the areas underlying the airport's critical airspace surfaces.

Table I-1: CNO ALUCP Compatibility Criteria Matrix												
Safety Zones	Residential Density Limits	Non-Residential Intensity Limits (People per acre)	Open Land Requirement for Entire Zone	Other Criteria	Boundary Determinations							
<b>Zone 1</b> Runway Protection Zone	0	0	All Remaining	Avigation Easement and Airspace Review Required	RPZ							
<b>Zone 2</b> Inner Approach/ Departure Zone	0	60 (avg.) 120 (single acre)	25%; preserve open land nearest runway end	Avigation Easement and Airspace Review Required	Safety Zone 2							
<b>Zone 3</b> Inner Turning Zone	1 dwelling unit per 2-acre lot	100 (avg.) 300 (single acre)	15%; preserve open land along extended runway centerline	Avigation Easement and Airspace Review Required	Safety Zone 3							
<b>Zone 4</b> Outer Approach/ Departure Zone	2 dwelling units per 2-acre lot	150 (avg.) 450 (single acre)	15%; preserve open land along extended runway centerline	Avigation Easement and Airspace Review Required	Safety Zone 4							
<b>Zone 6</b> Traffic Pattern Zone	No Limit	300 (avg.) 1,200 (single acre)	10%; preserve open land every 1/4 to 1/2 mile	Deed Notice and Airspace Review Required	Safety Zone 6							

Table I-2: Safety Zones Compatibility Criteria									
Legend: Land Use Compatibility (A detailed explanation of each land use acceptability category is provided at the end of this table)									
Normally Compatible Land Use		C Lar	onditiond Ind Use	onal (FAR)		Incompatible Land Use			
<ul> <li>A yellow cell indicates a use that is conditionally compatible provided it satisfies the maximum intensity limits and/or other listed conditions.</li> <li>Numbers in yellow cells indicate the Floor Area Ratio (FAR) limit for the use. The FAR limit is based on the common occupancy load factor [approx. number of square feet per person] indicated for that use. The FAR and/or the common occupancy load factors can be used to calculate the intensity (number of people per acre) of the proposed development. Up to 10% of the total FAR of a building may be devoted to an ancillary use and excluded from the single-acre intensity calculations, but not the average sitewide intensity limits.</li> </ul>									
Land Use Category 1	(	Comp	atibilit	ty Zone <sup>2</sup> <u>Criteria for Conditional Uses</u>					
Note: Multiple land use categories and compatibility criteria may apply to a project	1	2	3	4	6	Note: The numbers below indicate zone in which condition applies.			
Max Sitewide Average Intensity(people/acre) Max Single-Acre Intensity (people/acre) applicable to all nonresidential development	0 0	60 120	100 300	150 450	300 1200	<ul> <li>Nonresidential development must satisfy both forms of intensity limits.</li> <li>Maximum intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>			
Outdoor Uses (limited or no activities in bu	ildings	;)	1	1					
Natural Land Areas: desert, brush lands <sup>3</sup>						1: Avoid new features that attract birds; vegetation must be clear of airspace surfaces			
Water: flood plains, stormwater facilities, wetlands, lakes, reservoirs <sup>3</sup>						1-6: Avoid new features that attract birds			
Agriculture (except residences and livestock): crops, orchards, vineyards, pasture, range land <sup>3</sup>						1-6: Avoid new features that attract birds			
Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse stables <sup>3</sup>						2-6: Avoid new features that attract birds			
Outdoor Major/Large Assembly Facilities: <sup>4</sup> spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, racetracks, water parks, zoos						6: Allowed if intensity criteria met			
Outdoor Group Recreation (limited spectator stands): athletic fields, water recreation facilities, picnic areas						4, 6: Allowed only if site outside zone would not serve intended function			
Outdoor Small/Non-Group Recreation: golf courses, tennis courts, shooting ranges <sup>3</sup>						3-6: Allowed if intensity criteria met			
Local Parks: children-oriented neighborhood parks, playgrounds						6: Allowed if intensity criteria met			
Camping: campgrounds, recreational vehicle/ motor home parks						3-6: Allowed only if intensity criteria met			
Cemeteries (except chapels)									

Table I-2: Safety Zones Compatibility Criteria									
Legend: Land Use Compatibility (A detailed explanation of each land use acceptability category is provided at the end of this table)									
Normally Compatible Land Use		C Lar	onditiond Ind Use	onal (FAR)		Incompatible Land Use			
<ul> <li>A yellow cell indicates a use that is conditionally compatible provided it satisfies the maximum intensity limits and/or other listed conditions.</li> <li>Numbers in yellow cells indicate the Floor Area Ratio (FAR) limit for the use. The FAR limit is based on the common occupancy load factor [approx. number of square feet per person] indicated for that use. The FAR and/or the common occupancy load factors can be used to calculate the intensity (number of people per acre) of the proposed development. Up to 10% of the total FAR of a building may be devoted to an ancillary use and excluded from the single-acre intensity calculations, but not the average sitewide intensity limits.</li> </ul>									
Land Use Category 1	(	Comp	atibili	y Zon	e <sup>2</sup>	Criteria for Conditional Uses			
Note: Multiple land use categories and compatibility criteria may apply to a project	1	2	3	4	6	Note: The numbers below indicate zone in which condition applies.			
Max Sitewide Average Intensity(people/acre) Max Single-Acre Intensity (people/acre) applicable to all nonresidential development	0 0	60 120	100 300	150 450	300 1200	<ul> <li>Nonresidential development must satisfy both forms of intensity limits.</li> <li>Maximum intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>			
Residential and Lodging Uses	-			-					
Residential: individual dwellings, townhouses, mobile homes, apartments, condominiums, bed & breakfast inns <sup>5</sup>						3, 4: 1 du/2-acre lots (avg. density); 4 du/single- acre; locate dwelling max. distance from extended runway centerline where feasible			
Long-Term Lodging (>30 nights): extended-stay hotels, dormitories									
Short-Term Lodging (≤ 30 nights): hotels, motels, other transient lodging (except conference/assembly facilities) [approx. 200 SF/person]				0.69		4: FAR limits as indicated			
Congregate Care: retirement homes, assisted living, nursing homes, intermediate care facilities						6: Allowed only if site outside zone would not serve intended function			
Educational and Institutional Uses			_			-			
Family day care homes (≤14 children) ⁵									
Children's Schools: K-12, day care centers (>14 children); school libraries						6: Subject to approval by Caltrans Division of Aeronautics			
Adult Education classroom space: adult schools, colleges, universities [approx. 40 SF/person]			0.09	0.14	0.28	3-6: FAR limits as indicated; also see individual components of campus facilities (e.g., assembly facilities, offices, gymnasiums)			
Community Libraries			0.23	0.34	0.69	3-6: FAR limits as indicated			
Major Indoor Assembly Facilities 4: auditoriums, conference centers, concert halls, arenas									
Large Indoor Assembly Facilities <sup>4</sup> : movie theaters, places of worship, cemetery chapels, mortuaries [approx. 15 SF/person]			0.03	0.05	0.10	3-6: FAR limits as indicated			

Table I-2: Safety Zones Compatibility Criteria									
Legend: Land Use Compatibility (A detailed explanation of each land use acceptability category is provided at the end of this table)									
Normally Compatible Land Use		C Lar	Condition Ind Use	onal (FAR)		Incompatible Land Use			
<ul> <li>A yellow cell indicates a use that is conditionally compatible provided it satisfies the maximum intensity limits and/or other listed conditions.</li> <li>Numbers in yellow cells indicate the Floor Area Ratio (FAR) limit for the use. The FAR limit is based on the common occupancy load factor [approx. number of square feet per person] indicated for that use. The FAR and/or the common occupancy load factors can be used to calculate the intensity (number of people per acre) of the proposed development. Up to 10% of the total FAR of a building may be devoted to an ancillary use and excluded from the single-acre intensity calculations, but not the average sitewide intensity limits.</li> </ul>									
Land Use Category 1	(	Comp	atibili	y Zon	<b>e</b> <sup>2</sup>	Criteria for Conditional Uses			
Note: Multiple land use categories and compatibility criteria may apply to a project	1	2	3	4	6	Note: The numbers below indicate zone in which condition applies.			
Max Sitewide Average Intensity(people/acre) Max Single-Acre Intensity (people/acre) applicable to all nonresidential development	0 0	60 120	100 300	150 450	300 1200	<ul> <li>Nonresidential development must satisfy both forms of intensity limits.</li> <li>Maximum intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>			
Indoor Recreation: gymnasiums, club houses, athletic clubs, dance studios [approx. 60 SF/person]			0.14	0.21	0.41	3-6: FAR limits as indicated			
In-Patient Medical: hospitals, mental hospitals						6: Allowed only if site outside zone would not serve intended function			
Out-Patient Medical: health care centers, clinics [approx. 240 SF/person]			0.55	0.83		3, 4: FAR limits as indicated			
Penal Institutions: prisons, reformatories						6: Allowed only if site outside zone would not serve intended function			
Public Safety Facilities: police, fire stations						3, 4: Allowed only if site outside zone would not serve intended public function			
Commercial, Office, and Service Uses									
Major Retail: regional shopping centers, 'big box' retail [approx. 110 SF/person]			0.25	0.38	0.76	3-6: FAR limits as indicated; evaluate eating/ drinking areas separately if >10% of total floor area			
Local Retail: community/neighborhood shopping centers, grocery stores [approx. 170 SF/person]			0.39	0.59		3, 4: FAR limits as indicated; evaluate eating/ drinking areas separately if >10% of total floor area			
Eating/Drinking Establishments: restaurants, fast-food dining, bars [approx. 60 SF/person]			0.14	0.21	0.41	3-5: FAR limits as indicated			
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, lumber yards, nurseries [approx. 250 SF/person]		0.34	0.57			2, 3: FAR limits as indicated; design site to place parking inside and buildings outside of zone if possible			
Offices: professional services, doctors, finance, civic; radio, television & recording studios, office space associated with other listed uses [approx. 215 SF/person]		0.30	0.49	0.74		2-4: FAR limits as indicated			

Table I-2: Safety Zones Compatibility Criteria									
Legend: Land Use Compatibility (A detailed explanation of each land use acceptability category is provided at the end of this table)									
Normally Compatible Land Use		C Lai	Conditi nd Use	onal (FAR)		Incompatible Land Use			
<ul> <li>A yellow cell indicates a use that is conditionally compatible provided it satisfies the maximum intensity limits and/or other listed conditions.</li> <li>Numbers in yellow cells indicate the Floor Area Ratio (FAR) limit for the use. The FAR limit is based on the common occupancy load factor [approx. number of square feet per person] indicated for that use. The FAR and/or the common occupancy load factors can be used to calculate the intensity (number of people per acre) of the proposed development. Up to 10% of the total FAR of a building may be devoted to an ancillary use and excluded from the single-acre intensity calculations, but not the average sitewide intensity limits.</li> </ul>									
Land Use Category 1		Comp	atibili	ly Zon	<b>e</b> <sup>2</sup>	Criteria for Conditional Uses			
Note: Multiple land use categories and compatibility criteria may apply to a project	<sup>d</sup> 1	2	3	4	6	Note: The numbers below indicate zone in which condition applies.			
Max Sitewide Average Intensity(people/acre Max Single-Acre Intensity (people/acre applicable to all nonresidential developmen	e) 0 e) 0 nt	60 120	100 300	150 450	300 1200	<ul> <li>Nonresidential development must satisfy both forms of intensity limits.</li> <li>Maximum intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>			
Personal & Miscellaneous Services: barbers, car washes, print shops [approx. 200 SF/persor	<mark>ı]</mark>	0.28	0.46	0.69		2-4: FAR limits as indicated			
Vehicle Fueling: gas stations, trucking a transportation terminals	&								
Industrial, Manufacturing, and Storage U	lses								
Hazardous Materials Production: c refineries, chemical plants (≥ 6,00 gallons)	vil O								
Heavy Industrial						4: Avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft			
Light Industrial, High Intensity: food products preparation, electronic equipment [approx. 200 SF/persor	]	0.28	0.46	0.69		2-4: FAR limits as indicated; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft			
Light Industrial, Low Intensity: machine shops, wood products, auto repair [approx. 350 SF/persor	1]	0.48	0.80	1.21		2-4: FAR limits as indicated; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft			

		Tab	le I-	2: Sc	afety	Zones Compatibility Criteria			
Legend: Land Use Compatibility (A detailed explanation of each land use acceptability category is provided at the end of this table)									
Normally Compatible Land Use		C Lar	Condition Ind Use	onal (FAR)		Incompatible Land Use			
<ul> <li>A yellow cell indicates a use that is conditionally compatible provided it satisfies the maximum intensity limits and/or other listed conditions.</li> <li>Numbers in yellow cells indicate the Floor Area Ratio (FAR) limit for the use. The FAR limit is based on the common occupancy load factor [approx. number of square feet per person] indicated for that use. The FAR and/or the common occupancy load factors can be used to calculate the intensity (number of people per acre) of the proposed development. Up to 10% of the total FAR of a building may be devoted to an ancillary use and excluded from the single-acre intensity calculations, but not the average sitewide intensity limits.</li> </ul>									
Land Use Category 1	(	Comp	atibilit	y Zon	<b>e</b> <sup>2</sup>	Criteria for Conditional Uses			
Note: Multiple land use categories and compatibility criteria may apply to a project	1	2	3	4	6	Note: The numbers below indicate zone in which condition applies.			
Max Sitewide Average Intensity(people/acre) Max Single-Acre Intensity (people/acre) applicable to all nonresidential development	0 0	60 120	100 300	150 450	300 1200	<ul> <li>Nonresidential development must satisfy both forms of intensity limits.</li> <li>Maximum intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>			
Research & Development [approx. 300 SF/person]			0.69	1.03		3-4: FAR limits as indicated; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft			
Indoor Storage: wholesale sales, warehouses, mini/other indoor storage, barns, greenhouses [approx. 1,000 SF/person]						2: Single story only; max. 10% in mezzanine			
Outdoor Storage: public works yards, automobile dismantling									
Mining & Extraction <sup>6</sup>	-					-			
Transportation, Communication, and Utiliti	es								
Airport Terminals: airline, general aviation									
Rail & Bus Stations						2: Allowed only if site outside zone would not serve intended public function			
Transportation Routes: road & rail rights- of-way, bus stops <sup>3</sup>						1: Avoid new features that create airspace obstructions			
Auto Parking: surface lots, structures <sup>3</sup>						1: Avoid new features that create airspace obstructions			
Communications Facilities: emergency communications, broadcast, and cell towers 7						4, 6: Allowed only if site outside zone would not serve intended public function; not allowed within ½ mile of runway			
Power Plants 7						4, 6: Primary plants not allowed; peaker plants only			
Electrical Substations 7						4, 6: Allowed only if site outside zone would not serve intended public function; avoid features that create flight hazards			

Table I-2: Safety Zones Compatibility Criteria									
Legend: Land Use Compatibility (A detailed explanation of each land use acceptability category is provided at the end of this table)									
Normally Compatible Land Use		C Lai	Conditi nd Use	onal (FAR)		Incompatible Land Use			
<ul> <li>A yellow cell indicates a use that is conditionally compatible provided it satisfies the maximum intensity limits and/or other listed conditions.</li> <li>Numbers in yellow cells indicate the Floor Area Ratio (FAR) limit for the use. The FAR limit is based on the common occupancy load factor [approx. number of square feet per person] indicated for that use. The FAR and/or the common occupancy load factors can be used to calculate the intensity (number of people per acre) of the proposed development. Up to 10% of the total FAR of a building may be devoted to an ancillary use and excluded from the single-acre intensity calculations, but not the average sitewide intensity limits.</li> </ul>									
Land Use Category 1	(	Comp	atibili	ly Zon	<b>e</b> <sup>2</sup>	Criteria for Conditional Uses			
Note: Multiple land use categories and compatibility criteria may apply to a project	1	2	3	4	6	Note: The numbers below indicate zone in which condition applies.			
Max Sitewide Average Intensity(people/acre) Max Single-Acre Intensity (people/acre) applicable to all nonresidential development	0 0	60 120	100 300	150 450	300 1200	<ul> <li>Nonresidential development must satisfy both forms of intensity limits.</li> <li>Maximum intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>			
Wastewater Facilities: treatment, disposal <sup>3</sup>						6: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds			
Solid Waste Disposal Facilities: landfill, incineration <sup>3</sup>						6: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds			
Solid Waste Transfer Facilities, Recycle Centers <sup>3</sup> 6: Allowed on ot serve in new feature						6: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds			
Notes: Land uses not specifically listed shall be Sample safety zones from the 2011 C Chino Airport, extend into the limits of	e eva aliforr	luated nia Air ity of C	l using port La Dntaric	the cr and Us , exce	iteria fo se Planr pt for So	r similar uses. ning Handbook (Handbook), as applied to afety Zone 5. For numerical consistency, the			

- Chino Airport, extend into the limits of the City of Ontario, except for Safety Zone 5. For numerical consistency, the Compatibility Zones for Chino Airport maintain the same numbering system used in the Handbook despite omission of Safety Zone 5. Avigation easement dedication required as condition of approval for all properties within Compatibility Zones 1-4.
- <sup>3</sup> Although these uses may satisfy the Safety criteria, they may be inconsistent with the Airspace Protection criteria as these uses may attract birds or other wildlife that could pose hazards to flight (see **Airspace Protection Policies**) or create obstructions to navigable airspace.
- <sup>4</sup> A Major Assembly Facility is defined as having a capacity of ≥1,000 people, while a Large Assembly Facility has a capacity of 300 to 999 people. Source: International Building Code.
- <sup>5</sup> Construction of a single-family home, including a second dwelling unit as defined by state law, allowed on a legal lot of record if such use is permitted by local land use regulations. A family day care home (serving ≤14 children) may be established in any dwelling.
- <sup>6</sup> These uses may generate dust or other hazards to flight.
- <sup>7</sup> Power lines or other tall objects associated with these uses may be hazards to flight.

#### E \* 3 Legend BØ City Limits Ontario Parcels 調整 RIVERSIDE DRIVE AVE Chino Airport Influence Area AVE Ř ARCHIBALDAVE **GROVE AVE TURNER AVE** HAVEN AVE ₹ VINEYARD EUCLID, WALKER CAMPUS YER CHINOAVE SCHAEFER AVE **Bildici** EDISON AVE ONTARIO RANCH RD 対応 8 EUCALYPTUS AVE 1 (BIIII) MERRILL AVE ح4 Chino Ν Riverside County **Chino Airport** CITY OF ONTAR R 26 Γœ ۲ %. ד∞-Eastvale Policy Map L-1 05 **Chino Airport Influence Area** MILES

# Policy Map I-1 (Chino Airport Influence Area)





#### B0 Legend Ontario City Limits 67 **RIVERSIDE DRIVE** Parcels AVE EUCLID AVE **GROVE AVE** WALKER AVE ARCHIBALD AVE TURNER AVE HAVEN AVE Å Open Land Streets VINEYARD CAMPUS **Chino Safety Zones** CHINO AVE Zone 1 Zone 2 Zone 3 Zone 4 SCHAEFER AVE Zone 6 ONTARIO RANCH RD EDISON AVE 1 EUCALYPTUS AVE MERRILL AVE د4 Chino Riverside County Chino Airport ч 28 **⊢**∞-CITY O ONTAR г 8-**D** 00 **Eastvale** Policy Map L-2a <del>ں</del> Chino Airport Open Land Streets MILE

# Policy Map I-2a: Chino Airport Open Land Streets

Policy Map I-3: Chino Airspace Protection Zones



# Policy Map I-4: Chino Overflight Notification Zones

