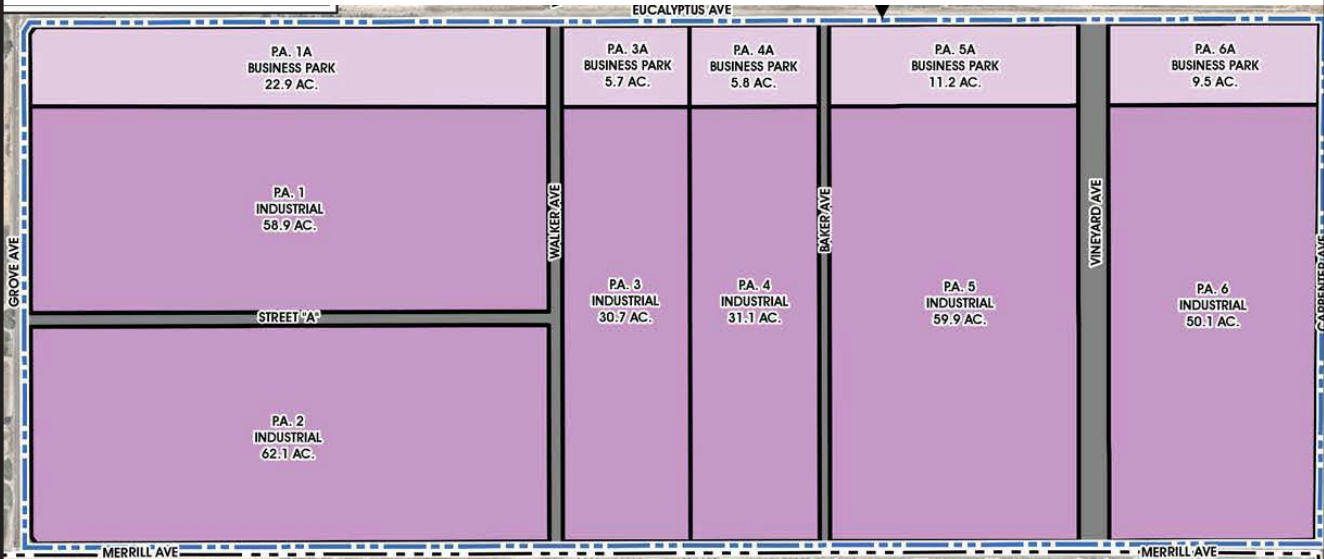


Merrill Commerce Center Specific Plan Draft EIR



October 2020

**DRAFT ENVIRONMENTAL
IMPACT REPORT**

for the

Merrill Commerce Center Specific Plan

State Clearinghouse Number:

2019049079

October 2020

Prepared for:

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

Prepared by:

Applied Planning, Inc.
11762 De Palma Road
Suite 1-C 310
Corona, CA 92883

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1.0 EXECUTIVE SUMMARY

1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Merrill Commerce Center Specific Plan Project (Project, Specific Plan) proposes development and operation of Specific Plan Industrial and Business Park Land Uses on approximately 376.3 acres located in the City of Ontario, within San Bernardino County. The Specific Plan area is apportioned into approximately 292.8 acres of Industrial Land Use; approximately 55.1 acres of Business Park Land Use; and approximately 28.4 acres allocated for Circulation (vehicular and non-vehicular) rights-of-ways, easements, and similar non-building uses. The Specific Plan Land Use Plan is presented subsequently at Figure 1.2-1.

Detailed information regarding land uses and development that would be allowed under the Specific Plan is presented within the *Merrill Commerce Center Specific Plan* (T&B Planning, Inc.) September 29, 2020, EIR Appendix B. The Specific Plan document in total is incorporated in this Project Description by reference. Under the current Project Development Concept evaluated in this EIR, the Specific Plan area would be developed with the following uses:

- **Industrial:** Approximately 6,312,600 square feet of high-cube fulfillment center warehouse use, and approximately 701,400 square feet of high-cube cold storage warehouse use.
- **Business Park:** Approximately 1,441,000 square feet of mixed uses including merchant wholesale, professional services, professional office, warehouse/storage, and research and development.

Total Development: 8,455,000 square feet.

The Project would also implement off-site City of Ontario Master Plan infrastructure improvements (roads, potable water, recycled water, sanitary sewer, storm drains, and fiber optic lines) in support of the Project. Predominantly, off-site areas that would be affected by construction of these infrastructure improvements comprise already-disturbed/developed rights-of-way and easements. City of Ontario Master Plan infrastructure systems improvements that would be implemented by the Project would conform to City Master Plan Utilities/Service Systems Concepts. Descriptions of infrastructure systems that would be implemented in support of the Project improvements are presented within this Section. Detailed analysis of impacts resulting from construction and operation of Master Plan infrastructure improvements that would be constructed in support of the Project is presented in this EIR.

It is also noted that potential impacts resulting from construction and operation of City Master Plan infrastructure systems have been previously considered and addressed in Initial Study and Mitigated Negative Declaration City of Ontario Infrastructure Master Plans (City of Ontario) July 2012 (Infrastructure Master Plans MND). The Infrastructure Master Plans MND concluded that construction and operation of Master Plan infrastructure improvements would not result in significant impacts not already considered and addressed in correlating analyses in The Ontario Plan EIR. Similarly, Master Plan infrastructure improvements constructed in support of the Project would not result in significant impacts not already considered and addressed in correlating analyses presented within the Infrastructure Master Plans MND; and by extension would not result in significant infrastructure systems impacts not already considered and addressed in correlating analyses presented within The Ontario Plan EIR.

Analyses within this EIR reflect the range and types of uses permitted or conditionally permitted under the Specific Plan Industrial and Business Park Land Use designations. Should future development proposals proposed within the Specific Plan area, or supporting infrastructure proposed as part of the Project differ substantially from the development concepts analyzed herein, the Lead Agency would comply with CEQA in consideration of those proposals.

It is specifically noted that any site plan concepts, building footprints, building sizes, and/or building orientations depicted in the EIR or supporting technical analyses are provided for illustrative purposes only. This EIR in all instances evaluates likely maximum impact scenarios. No site plans or building plans would be entitled under the EIR Project or as part of the Specific Plan approval.

The Project site¹ is located within the Ontario Ranch (formerly the “New Model Colony,” NMC) area of the City. More specifically, the Project site is located along Merrill Avenue, between Grove Avenue and Carpenter Avenue. Eucalyptus Avenue forms the northerly boundary of the Specific Plan area. Please refer to Figure 1.1-1, *Project Location*.

The analysis presented in this EIR considers and addresses environmental impacts resulting from development of the Project site proper, and also evaluates impacts that would result from off-site activities or improvements necessary to implement and support the Project. This EIR Section summarizes relevant Project background issues, provides a brief description of the Project and its Objectives, and summarizes potential environmental impacts of the Project. Table 1.11-1, *Impacts and Mitigation Summary*, presented at the conclusion of this Section, lists these impacts and presents the mitigation measures recommended to eliminate or reduce the effects of impacts determined to be potentially significant.

Alternatives to the Project which could avoid or substantially lessen the Project’s identified significant environmental impacts are also briefly described within this Section. For a full description of the Project, its impacts, recommended mitigation measures, and considered Alternatives, please refer to EIR Sections 3.0, 4.0, and 5.0, respectively.

¹ The Project site is defined as the area encompassed by the Merrill Commerce Center Specific Plan (the Specific Plan area). The analysis presented in this Environmental Impact Report (EIR) considers and addresses environmental impacts resulting from development of the Project site proper, and also evaluates impacts that would result from off-site activities or improvements necessary to implement and support the Project.



NOT TO SCALE

Source: Google Earth; Applied Planning, Inc.

----- Project Site Boundary

1.2 PROJECT ELEMENTS

Primary elements comprising the Project are summarized below. Please refer also to the expanded characterization of Project facilities and operations presented at EIR Section 3.0, *Project Description*.

1.2.1 Existing and Proposed Land Use Designations

Existing City of Ontario Policy Plan (General Plan) Project site Land Use designations are: “Business Park,” “Office Commercial,” and “General Commercial.” To allow for the Project, the Applicant proposes to amend the current Project site Policy Plan Land Use designations to “Business Park” and “Industrial.” Existing and proposed Policy Plan Land Use designations are summarized at Table 1.2-1.

**Table 1.2-1
Existing and Proposed Policy Plan Land Use Designations**

| Existing | Proposed |
|---------------------------------|----------------------------|
| Business Park – 314.7 Acres | Business Park - 55.1 acres |
| Office Commercial - 43.3 acres | Industrial - 292.8 acres |
| General Commercial - 18.3 acres | Circulation - 28.4 acres |
| Total: 376.3 Acres | Total: 376.3 Acres |

The existing Zoning designation of the Project site is “Specific Plan” with an “AG” (Agricultural) Overlay. If adopted by the City, the proposed Merrill Commerce Center Specific Plan would establish the effective Zoning of the Project site.

1.2.2 Site Preparation, Construction Traffic Management

As an initial action, the Project site would be cleared of vegetation. All on-site improvements associated with or supporting the existing on-site land uses would be demolished or removed. At a minimum, debris generated by site preparation and demolition activities would be disposed of/recycled consistent with provisions of the California Integrated Waste Management Plan Act (AB 939) and the City’s Integrated Waste Department *Refuse and Recycling Planning Manual*.²

² City of Ontario, California: *Solid Waste Department [Integrated Waste Department] Refuse and Recycling Manual*, Updated March 17, 2016. <https://www.ontarioca.gov/omuc/integrated-waste>. Additionally, the Project Construction and Demolition Waste Management Plan will be designed and implemented to yield a minimum of 90 percent recycled/salvaged materials.

The natural topography of the Project site is relatively flat. No unusual grading conditions are present and substantial import or export of earth materials is not expected. The primary objectives of the grading plan are to: provide stable development pads for construction; balance the cut and fill grading quantities on-site; and meet City of Ontario building standards and acceptable infrastructure gradient requirements.

To avoid or minimize temporary construction-related traffic impacts throughout site preparation and construction activities, the Project Applicant would be required to prepare and implement a City-approved construction traffic management plan. Typical elements and information incorporated in the Plan would include, but not be limited to:

- **Name of on-site construction superintendent and contact phone number.**
- **Identification of Construction Contract Responsibilities** - For example, for excavation and grading activities, describe the approximate depth of excavation, and quantity of soil import/export (if any).
- **Identification and Description of Truck Routes** - to include the number of trucks and their staging location(s) (if any).
- **Identification and Description of Material Storage Locations (if any).**
- **Location and Description of Construction Trailer (if any).**
- **Identification and Description of Traffic Controls** - Traffic controls shall be provided per the Manual of Uniform Traffic Control Devices (MUTCD) if the occupation or closure of any traffic lanes, parking lanes, parkways or any other public right-of-way is required. If the right-of-way occupation requires configurations or controls not identified in the MUTCD, a separate traffic control plan must be submitted to the City for review and approval. All right-of-way encroachments would require permitting through the City.
- **Identification and Description of Parking** - Estimate the number of workers and identify parking areas for their vehicles.

Identification and Description of Maintenance Measures - Identify and describe measures taken to ensure that the work site and public right-of-way would be maintained (including dust control).

The Plan would be reviewed and approved by the City prior to the issuance of the first building permit. The Plan and its requirements would also be required to be provided to all contractors as one component of building plan/contract document packages.

1.2.3 Development Concept

1.2.3.1 Land Use Plan Concept

The Specific Plan Land Use Plan is presented at Figure 1.2-1. The Specific Plan area comprises approximately 376.3 acres apportioned as follows:

- Industrial Land Use: Approximately 292.8 acres;
- Business Park Land Use: Approximately 55.1 acres; and
- Circulation (vehicular and non-vehicular): Approximately 28.4 acres.

Under the Project Development Concept evaluated in this EIR, the Specific Plan area would be developed with the following uses:

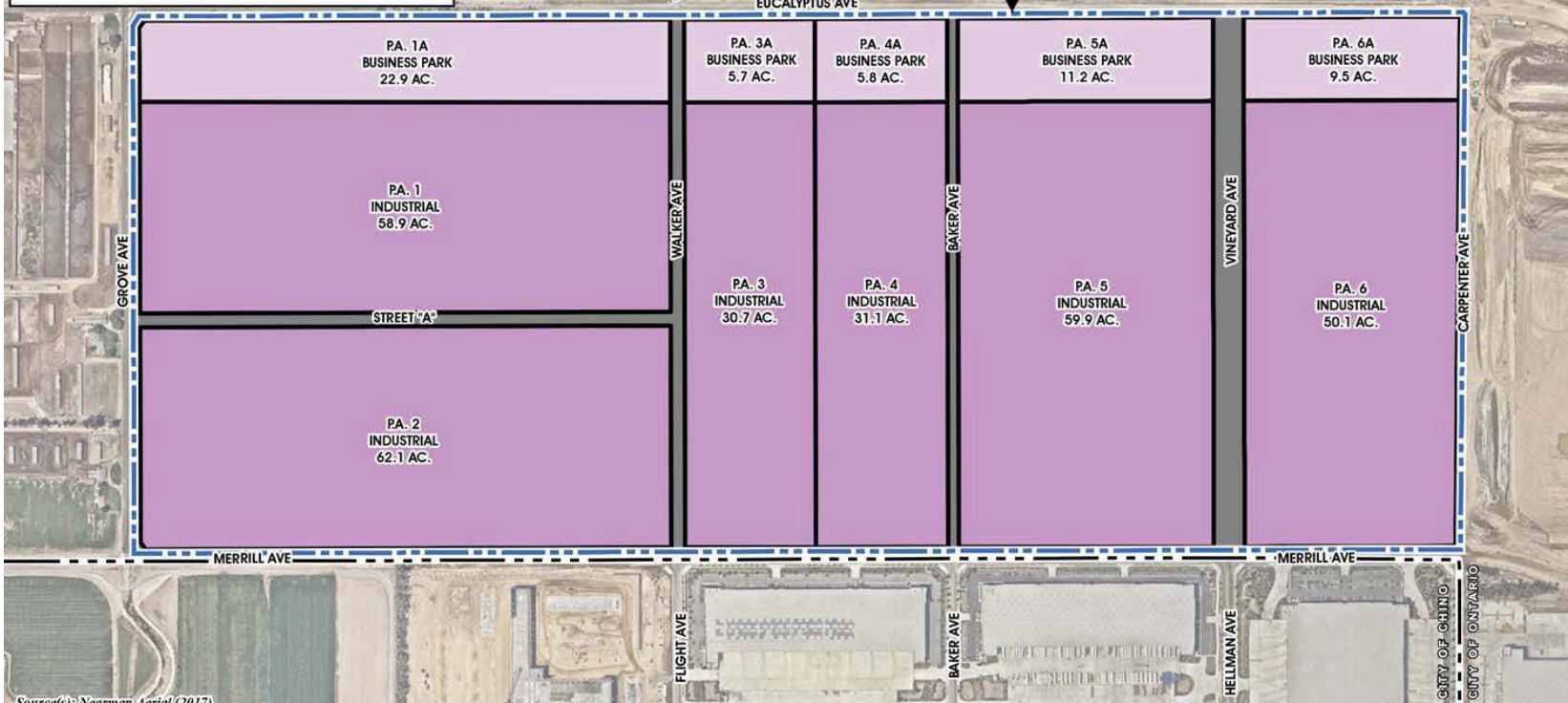
- **Industrial Land Use:** The Specific Plan Industrial Land Use would be developed with approximately 6,312,600 square feet of high-cube fulfillment center warehouse use, and approximately 701,400 square feet of high-cube cold storage warehouse use;
- **Business Park Land Use:** The Specific Plan Business Park Land Use would be developed with approximately 1,441,000 square feet of mixed uses including merchant wholesale, professional services, professional office, warehouse/storage, and research and development.

Total Development: 8,455,000 square feet

| LAND USE PLAN STATISTICAL SUMMARY | | | | |
|--|----------------------|--------------------|-------------|-------------------------------------|
| PLANNING AREA | LAND USE DESIGNATION | ACRES ¹ | FAR | BUILDING SQ. FOOTAGE ^{2,3} |
| Industrial | | | | |
| 1 | Industrial | 58.9 | 0.55 | 1,411,000 SF |
| 2 | Industrial | 62.1 | | 1,488,000 SF |
| 3 | Industrial | 30.7 | | 735,000 SF |
| 4 | Industrial | 31.1 | | 745,000 SF |
| 5 | Industrial | 59.9 | | 1,435,000 SF |
| 6 | Industrial | 50.1 | | 1,200,000 SF |
| Total Industrial Acreage and Maximum Building SF | | 292.8 | 0.55 | 7,014,000 SF |
| Business Park | | | | |
| 1A | Business Park | 22.9 | 0.60 | 598,000 SF |
| 3A | Business Park | 5.7 | | 150,000 SF |
| 4A | Business Park | 5.8 | | 152,000 SF |
| 5A | Business Park | 11.2 | | 293,000 SF |
| 6A | Business Park | 9.5 | | 248,000 SF |
| Total Business Park Acreage and Maximum Building SF | | 55.1 | | 0.60 |
| Circulation | | 28.4 | --- | --- |
| TOTALS | | 376.3 AC | | 8,455,000 SF |

Notes:

1. Acreages are approximate and subject to survey verification.
2. Building square footage calculated by multiplying the total acreage of each planning area by the anticipated floor area ratio (FAR) for the respective land use designation (FAR of 0.55 is applicable to the Industrial land use designation and FAR of 0.60 is applicable to the Business Park land use designation).
3. Building square footages per planning area are approximate. Maximum building square footages indicated for each land use shall not be exceeded.
4. Land Use Plan is for conceptual purposes only.



MERRILL COMMERCE CENTER



Source(s): Nearmap Aerial (2017)

NOT TO SCALE
Source: T&B Planning, Inc.

Figure 1.2-1
Land Use Plan

Analyses within this EIR address the range and types of uses permitted or conditionally permitted under the Specific Plan Industrial and Business Park Land Use designations. Should future development proposals proposed within the Specific Plan area, or supporting infrastructure proposed as part of the Project differ substantially from the development concepts analyzed herein, the Lead Agency would comply with CEQA in consideration of those proposals.

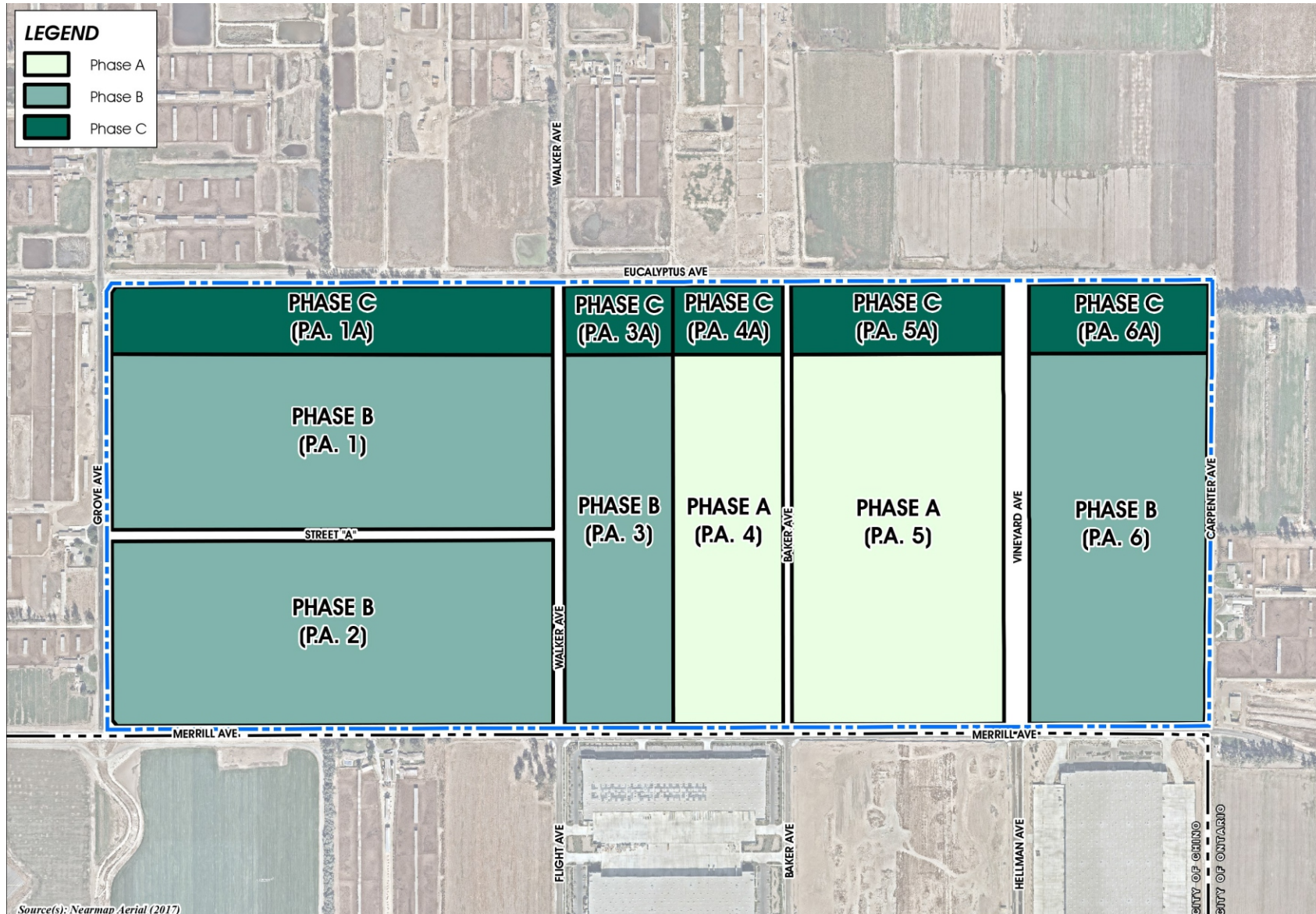
1.2.3.2 Project Phasing Concept

The Project would be implemented in 3 Phases – “A,” “B,” and “C.” Phase A is anticipated to be completed by 2022, Phase B by 2025, and Phase C by 2026. Project phasing would ultimately respond to market demands and would be contingent on availability of supporting infrastructure. The Project Phasing Plan is presented at Figure 1.2-2.

1.2.3.3 Access and Circulation

As illustrated at Figure 1.2-3, access to the Specific Plan area would be provided via surrounding roadways, including Merrill Avenue, Grove Avenue, Vineyard Avenue, and Eucalyptus Avenue. The roadway improvements listed below would be constructed as part of the Specific Plan buildout. Please refer also to Specific Plan Section 4.1, *Circulation and Access Plan* for further details regarding Project roadway and access improvements.

- Walker Avenue would be constructed as a north-south oriented Collector road that would connect to Edison Avenue/Ontario Ranch Road to the north and Merrill Avenue to the south;
- Street “A” would be constructed as an east-west oriented Local Industrial Street that would provide access through the western portion of the Specific Plan area and connect to Grove Avenue at its westerly terminus and future Walker Avenue at its easterly terminus;
- Baker Avenue would be constructed as a north-south oriented Local Industrial Street that would provide access through the Specific Plan area and connect to Eucalyptus Avenue at its northerly terminus and Merrill Avenue at its southerly terminus;



NOT TO SCALE
Source: T&B Planning, Inc.

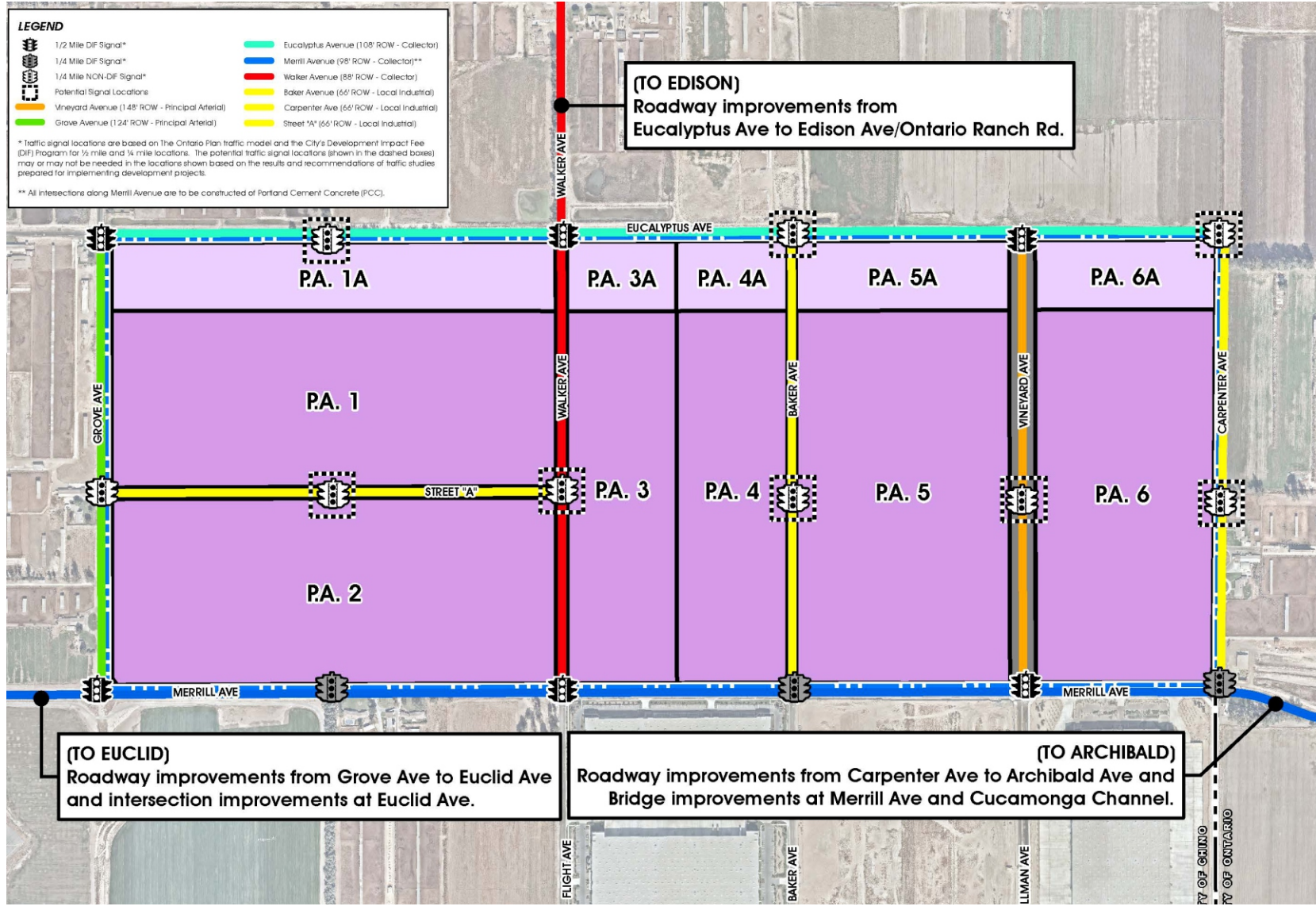
Figure 1.2-2
Phasing Concept

LEGEND

- 1/2 Mile DIF Signal*
- 1/4 Mile DIF Signal*
- 1/4 Mile NON-DIF Signal*
- Potential Signal Locations
- Vineyard Avenue (148' ROW - Principal Arterial)
- Grove Avenue (124' ROW - Principal Arterial)
- Eucalyptus Avenue (108' ROW - Collector)
- Merrill Avenue (98' ROW - Collector)**
- Walker Avenue (88' ROW - Collector)
- Baker Avenue (66' ROW - Local Industrial)
- Carpenter Ave (66' ROW - Local Industrial)
- Street 'A' (66' ROW - Local Industrial)

* Traffic signal locations are based on The Ontario Plan traffic model and the City's Development Impact Fee (DIF) Program for 1/2 mile and 1/4 mile locations. The potential traffic signal locations (shown in the dashed boxes) may or may not be needed in the locations shown based on the results and recommendations of traffic studies prepared for implementing development projects.

** All Intersections along Merrill Avenue are to be constructed of Portland Cement Concrete (PCC).



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 1.2-3
Circulation Plan

- Vineyard Avenue would be constructed as a north-south oriented Principal Arterial that would provide access through the Specific Plan area and connect to Eucalyptus Avenue at its northerly terminus and Merrill Avenue at its southerly terminus;
- Frontage improvements to Carpenter Avenue as a Local Industrial roadway along the entirety of the easterly Specific Plan boundary;
- Frontage improvements to Eucalyptus Avenue as a Collector roadway along the entirety of the northerly Specific Plan boundary;
- Frontage improvements to Grove Avenue as a Principal Arterial roadway along the entirety of the westerly Specific Plan boundary;
- Improvements to the segment of Merrill Avenue as a Collector roadway located between Euclid Avenue and Archibald Avenue; and
- Widening of the existing bridge crossing Merrill Avenue at the Cucamonga Flood Control Channel.

1.2.4 Utilities Infrastructure

Development of the Project would require the installation of water, sewer, drainage and other utility facilities. Proposed utilities infrastructure plans and improvements to be implemented by the Project are summarized below.

City of Ontario Policy Plan Policy LU4-3 *Infrastructure Timing* requires that necessary infrastructure and services be in place prior to or concurrent with new development. Similarly, the Merrill Commerce Center Specific Plan includes a development phasing plan and infrastructure phasing plan that require infrastructure supporting buildout of the Specific Plan be adequately phased concurrent with development (see: Specific Plan, p. A-6).

1.2.4.1 Potable Water Plan

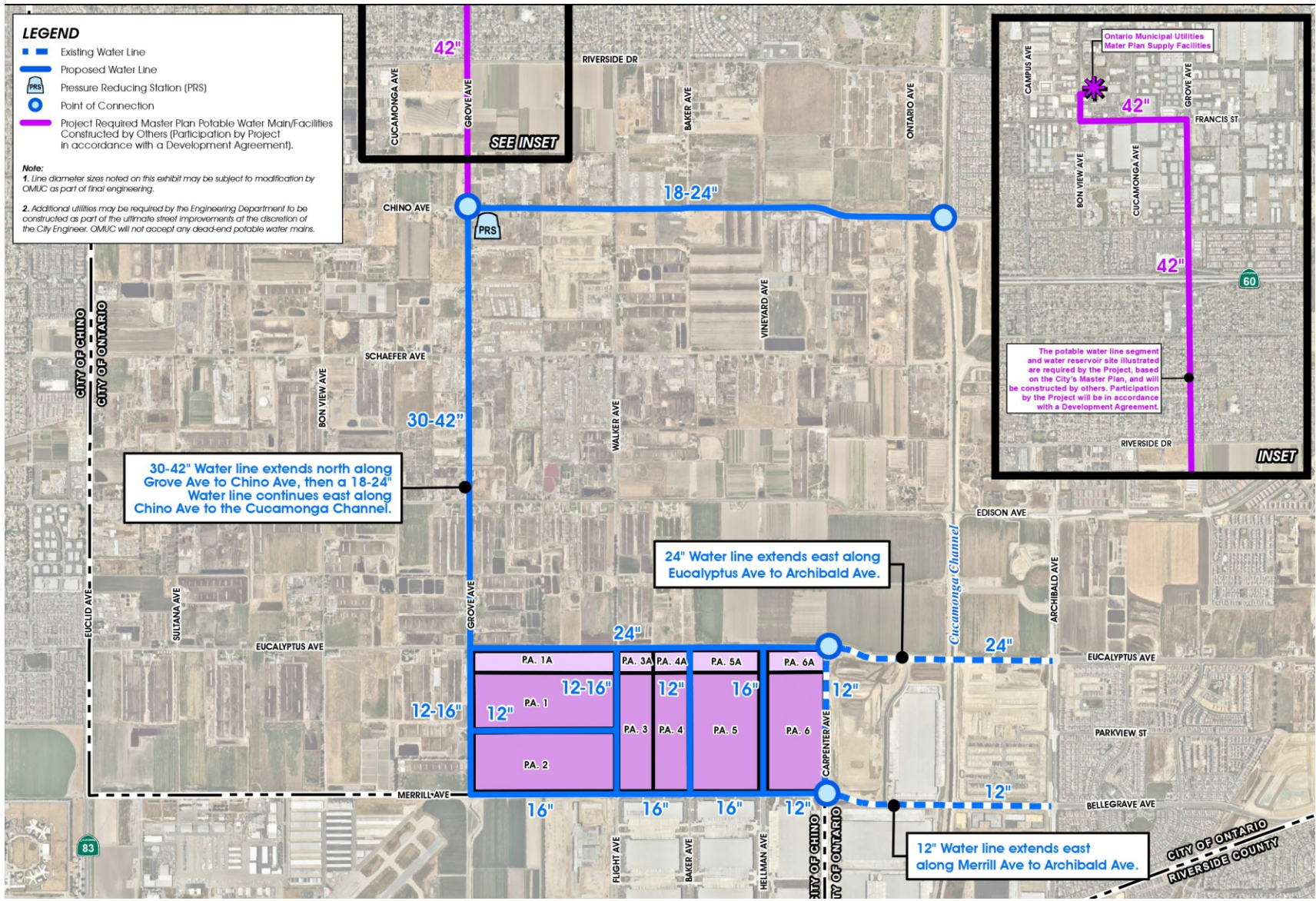
The Project Potable Water Plan Concept is presented at Figure 1.2-4. Potable water services to the Specific Plan area would be provided by the City of Ontario (Ontario Municipal Utilities Company, OMUC). Please refer also to correlating discussions presented at EIR Section 3.0, *Project Description*; and EIR Section 4.12, *Utilities & Services*.

LEGEND

- Existing Water Line
- Proposed Water Line
- Pressure Reducing Station (PRS)
- Point of Connection
- Project Required Master Plan Potable Water Main/Facilities Constructed by Others (Participation by Project in accordance with a Development Agreement).

Note:

1. Line diameter sizes noted on this exhibit may be subject to modification by OMUC as part of final engineering.
2. Additional utilities may be required by the Engineering Department to be constructed as part of the ultimate street improvements at the discretion of the City Engineer. OMUC will not accept any dead-end potable water mains.



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 1.2-4
Conceptual Water Plan

Currently there are no City potable water mains or City potable water infrastructure in the vicinity of the Project. Potable Water System Improvements for the Specific Plan area require the planning, design, and construction of the 925 Pressure Zone (PZ) Phase 2 West Backbone, which includes:

- Extending the 24-inch potable water main in Eucalyptus Avenue from Carpenter Avenue to Grove Avenue;
- A 30-inch to 42-inch potable water main in Grove Avenue connecting from the 24-inch potable water main in Eucalyptus Avenue and extending to Chino Avenue;
- An 18-inch to 24-inch potable water main in Chino Avenue and connecting to the existing 18-inch potable water main located on the west side of the Cucamonga Creek Channel;
- A Pressure Reducing Station between the 1010 PZ and 925 PZ near the intersection of Grove Avenue and Chino Avenue.

Master Plan Phase 2 facilities that are required to serve the Project but that will be constructed by others include:

- A 42-inch potable water main in Grove Avenue connecting from the 30-inch potable water main in Grove Avenue at Chino Ave and extending to Francis Avenue;
- A 42-inch potable main in Francis Avenue connecting from the 42-inch potable water main in Grove Avenue and extending to Bon View Avenue;
- A 42-inch potable water main in Bon View Avenue connecting from the 42-inch potable water main in Francis Avenue and extending to the Bon View Avenue Reservoir site and to the Reservoir;

- A 9 million gallon reservoir on the Bon View Reservoir site, two 2,500 gpm wells with any treatment necessary to meet water quality standards and the 16-inch to 42-inch well collection mains from the wells to the reservoirs.

At the time the Specific Plan was prepared, the alignment of the 42-inch water line between Chino Avenue and the water reservoir site had not been finalized and is subject to change. The Project will be required to participate in the future Phase 2 Water System Improvements north of Chino Avenue, as detailed in the Development Agreement with the City.

In addition to the 925 Pressure Zone (PZ) Phase 2 West Backbone system described above, the Project would implement a Secondary Loop between the 925 Pressure Zone (PZ) Phase 2 West Backbone system and the Project site. These improvements would include:

- A 24-inch potable water main in Eucalyptus Avenue connecting to the 30-inch to 42-inch 925 Pressure Zone (PZ) Phase 2 West Backbone main in Grove Avenue;
- A 16-inch potable water main in Merrill Avenue connecting from the 12-inch to 16-inch potable water main in Grove Avenue and extending to Vineyard Avenue;
- A 16-inch potable water main in Vineyard Avenue connecting from the 16-inch potable water main in Merrill Avenue and extending to connect to the 24-inch potable water main in Eucalyptus Avenue; and
- A 12-inch potable water main in Merrill Avenue connecting from the 16-inch potable water main in Vineyard Avenue and extending east to connect to the 12-inch potable water main in Carpenter Avenue.

The Project would also construct the Local Adjacent Potable Water System. Improvements would include:

- A 12-inch to 16-inch potable water main in Grove Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue;
- A 12-inch to 16-inch potable water main in Walker Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue;
- A 12-inch potable water main in Baker Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue; and
- A 12-inch potable water main in “Street A” connecting to the 12-inch potable water main in Grove Avenue and extending to connect to the 12-inch to 16-inch potable water main in Walker Avenue.

Water infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final designs. Orientation and configuration of water mains are also subject to change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including Inland Empire Utility Agency (IEUA) water mains, that do not meet minimum depths, standard alignment locations, and/or minimum horizontal and vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, all onsite potable water systems, non-potable water systems, and fire protection/suppression water systems shall be private and be privately-maintained.

1.2.4.2 Sewer Plan




The Project Sanitary Sewer Plan Concept is presented at Figure 1.2-5. Please refer also to correlating discussions presented at EIR Section 3.0, *Project Description*; and EIR Section 4.12, *Utilities & Services*.

Sanitary sewer service to the Project site and surrounding area is provided by OMUC. OMUC conveys wastewater to IEUA for transmission to area-serving treatment facilities. Existing 21-inch and existing 24-inch City sanitary sewer mains are located in Carpenter Avenue to the east and south of the Project site. The Project site and surrounding properties are included within the City's Sewer Master Plan. The areas west of Vineyard Avenue are Tributary to the Western Trunk Sewer (WTS), which connect to IEUA's system at Kimball Avenue and Euclid Avenue. The areas east of Vineyard Avenue are Tributary to the Eastern Trunk Sewer (ETS), through the City's Carpenter Trunk Sewer which connect to IEUA's system at Vineyard/Hellman Avenue and the San Bernardino/Riverside County line. Specific Plan Planning Areas 1 to 5 and 1A to 5A are within the WTS tributary area. Specific Plan Planning Area 6 and 6A are within the ETS tributary area.

The Project would construct the following Primary Sewer Master Plan Backbone mains of the WTS:

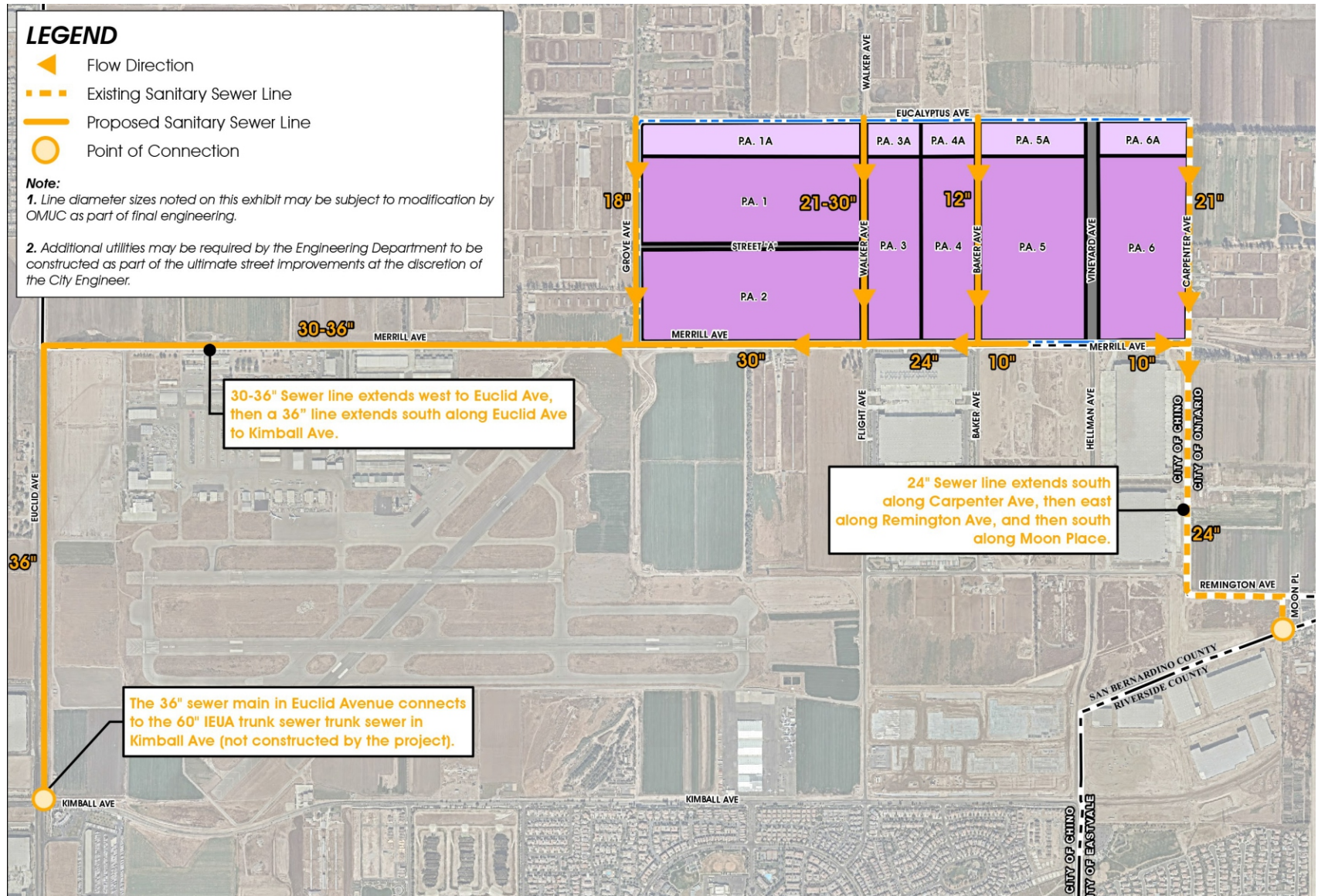
- A 36-inch sewer main in Euclid Avenue connecting to the IEUA's 60-inch Kimball Interceptor at the intersection of Kimball Avenue and Euclid Avenue and extending north to Merrill Avenue;
- A 30-inch to 36-inch sewer main in Merrill Ave from Euclid Avenue to Grove Avenue;
- A 30-inch sewer main in Merrill Avenue from Grove Avenue to Walker Avenue; and
- A 21-inch to 30- inch sewer main in Walker Avenue from Merrill Avenue to Eucalyptus Avenue.

LEGEND

-  Flow Direction
-  Existing Sanitary Sewer Line
-  Proposed Sanitary Sewer Line
-  Point of Connection

Note:

1. Line diameter sizes noted on this exhibit may be subject to modification by OMUC as part of final engineering.
2. Additional utilities may be required by the Engineering Department to be constructed as part of the ultimate street improvements at the discretion of the City Engineer.



30-36" Sewer line extends west to Euclid Ave, then a 36" line extends south along Euclid Ave to Kimball Ave.

24" Sewer line extends south along Carpenter Ave, then east along Remington Ave, and then south along Moon Place.

The 36" sewer main in Euclid Avenue connects to the 60" IEUA trunk sewer trunk sewer in Kimball Ave (not constructed by the project).



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 1.2-5
Conceptual Sewer Plan

In addition to the Primary Sewer Master Plan Backbone mains, the Specific Plan area requires the planning, design, and construction of a Secondary Master Plan Trunk Sewer, which includes: installing an 18-inch Grove Trunk Sewer main in Grove Avenue from the WTS in Merrill Avenue and extending north in Grove Avenue to Eucalyptus Avenue.

The Project would also construct the Local Adjacent Sewer System. These improvements include:

- A 10-inch sewer main in Merrill Avenue from Carpenter Avenue extending westerly towards Vineyard Avenue;
- A 24-inch sewer main in Merrill Avenue from the WTS in Walker Avenue and extending easterly to Baker Avenue;
- A 10-inch sewer main in Merrill Avenue from Baker Avenue extending easterly towards Vineyard Avenue; and
- A 12-inch sewer main in Baker Avenue from Merrill Avenue extending northerly toward Eucalyptus Avenue.

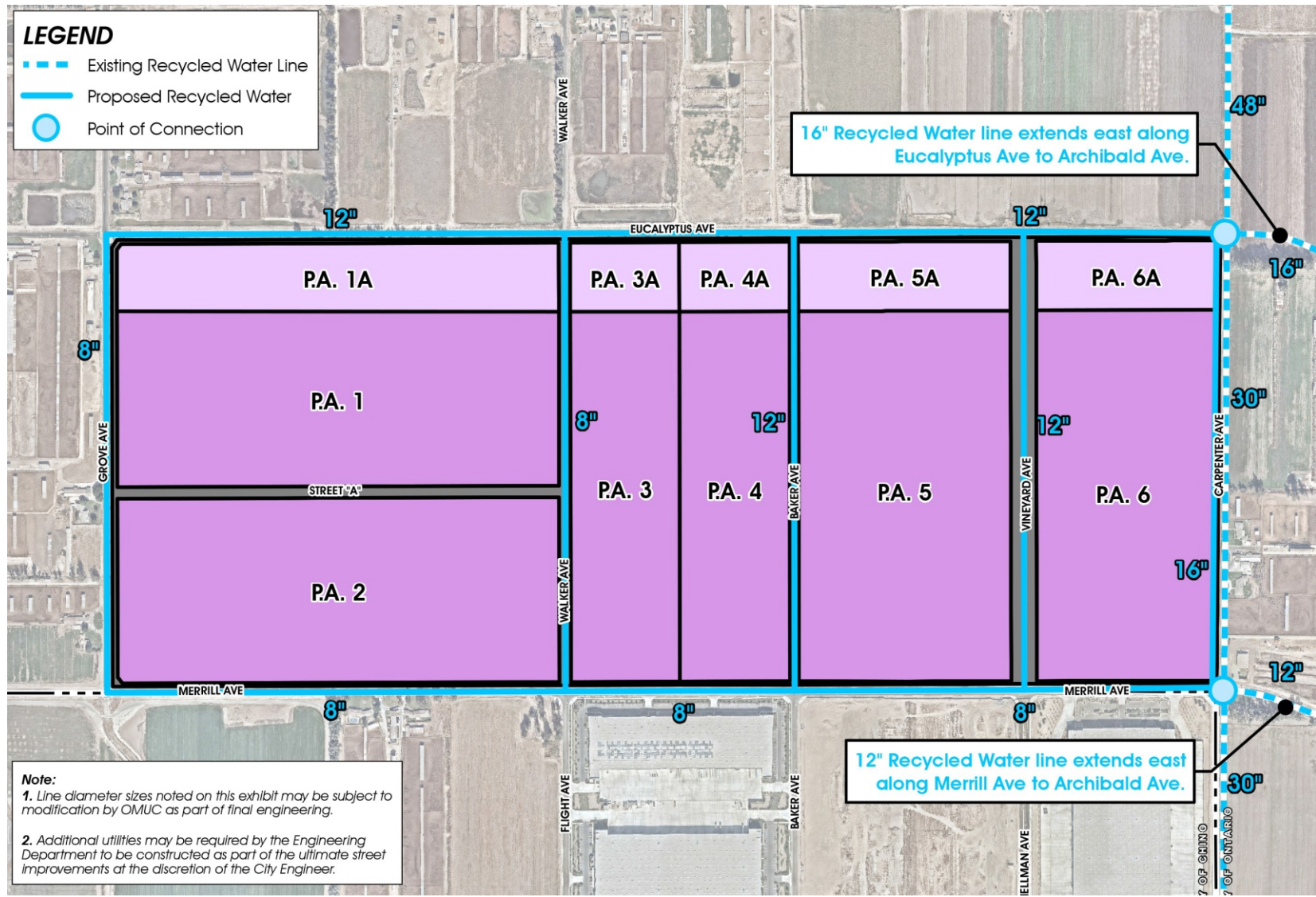
Sanitary sewer infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final designs. Sewer main orientations and configurations are also subject to change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including IEUA Recycled Water mains, that do not meet minimum depth, standard alignment locations, and/or minimum horizontal and vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, the onsite sanitary sewer systems shall be private and be privately maintained.

1.2.4.3 Recycled Water Plan

The Project Recycled Water Plan Concept is presented at Figure 1.2-6. Please refer also to correlating discussions presented at EIR Section 3.0, *Project Description*; and EIR Section 4.12, *Utilities & Services*.

LEGEND

- - - Existing Recycled Water Line
- Proposed Recycled Water
- Point of Connection



Note:

1. Line diameter sizes noted on this exhibit may be subject to modification by OMUC as part of final engineering.
2. Additional utilities may be required by the Engineering Department to be constructed as part of the ultimate street improvements at the discretion of the City Engineer.



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 1.2-6
Conceptual Recycled Water Plan

In the vicinity of the Project, existing City recycled water infrastructure is located in Carpenter Avenue, Eucalyptus Avenue, and Merrill Avenue. Recycled water supplied to the Project would be provided by OMUC. OMUC recycled water supplies are produced by IEUA from IEUA's four wastewater reclamation plants. The Project site and surrounding properties lie within the City's Master Plan 930 Pressure Zone.

The following Master Plan 930 Pressure Zone recycled water system improvements would be constructed as part of the Project:

- A 16-inch recycled water main in Carpenter Avenue connecting to the 16-inch 930 Pressure Zone Recycled Water main in Eucalyptus Avenue and extending it to connect to the 8-inch 930 Pressure Zone Recycled Water main in Merrill Avenue;
- A 12-inch recycled water main in Eucalyptus Avenue connecting to the existing 30-inch to 48-inch 930 Pressure Zone recycled water main in Carpenter Avenue and existing 16-inch recycled water main in Eucalyptus Avenue between Carpenter Avenue and Archibald Avenue;
- An 8-inch recycled water main in Grove Avenue connecting to the 12-inch recycled water main in Eucalyptus Avenue and extending in Grove Avenue to Merrill Avenue;
- An 8-inch recycled water main in Merrill Avenue connecting to the existing City 12-inch 930 Pressure Zone Recycled Water main in Merrill Avenue at the intersection of Merrill Avenue and Carpenter Avenue and extending it west to Baker Avenue; and
- An 8-inch recycled water main in Merrill Avenue connecting to the 12-inch recycled water main in Merrill Avenue at Baker Avenue and extending west to Grove Avenue.

In addition to the Master Plan 930 Pressure Zone improvements listed above, the Project would construct the following Secondary Loop improvements:

- An 8-inch recycled water main in Merrill Avenue connecting to the 8-inch recycled water main in Merrill Avenue at Grove Avenue and extending west to Euclid Avenue.

The Project would also construct the Local Adjacent Recycled Water System. These improvements include:

- A 12-inch recycled water main in Vineyard Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue;
- A 12-inch recycled water main in Baker Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue;
- An 8-inch recycled water main in Walker Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue.

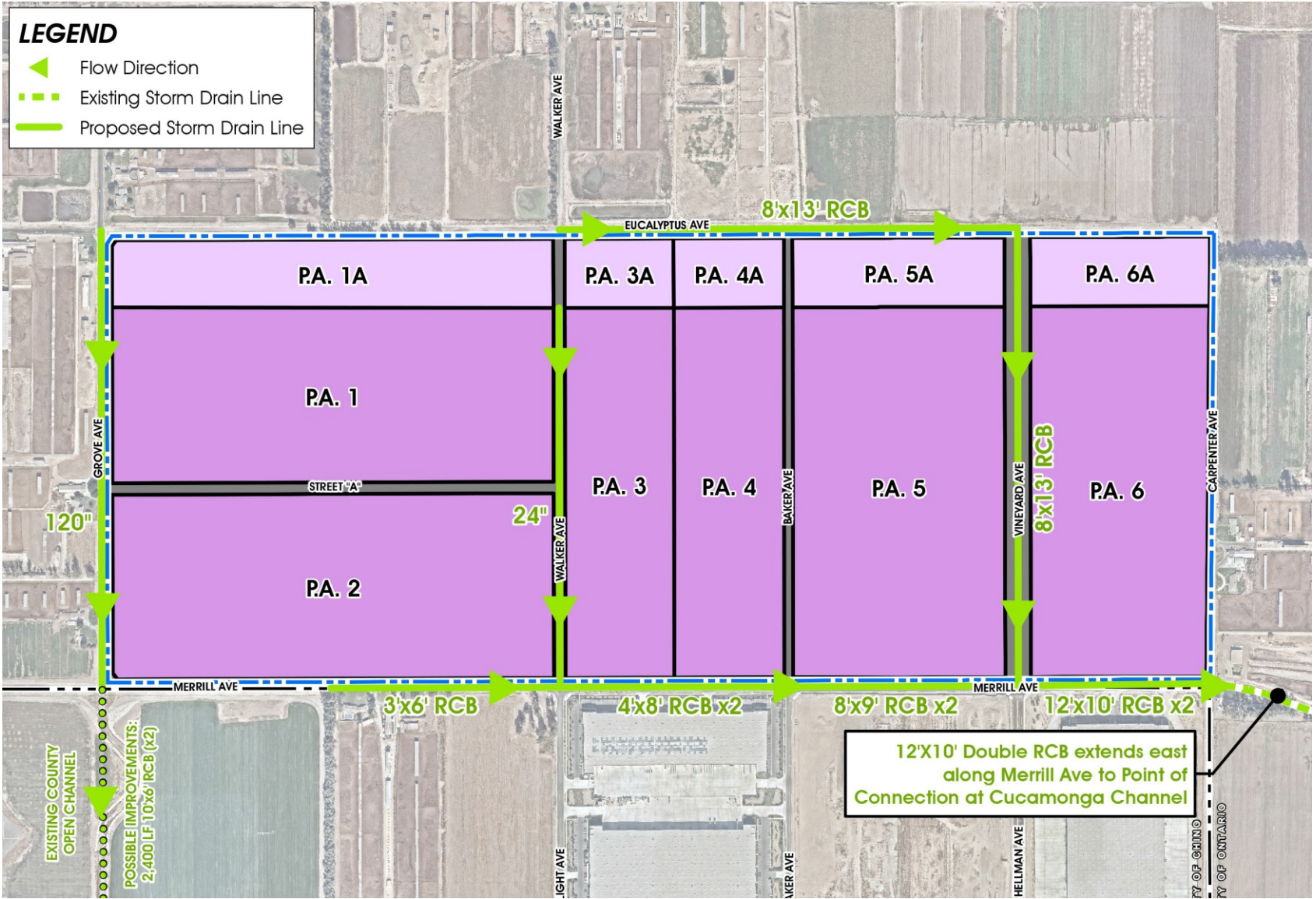
Recycled water infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final designs. Recycled water main orientations and configurations are also subject to change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including IEUA Recycled Water mains, that do not meet minimum depth, standard alignment locations, and/or minimum horizontal and vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, the onsite recycled water systems shall be private and be privately maintained.

1.2.4.4 Storm Water Management Plan

The Project Storm Water Management Plan Concept is presented at Figure 1.2-7. Please refer also to correlating discussions presented at EIR Section 3.0, *Project Description*; and EIR Section 4.12, *Utilities & Services*.

The Project Storm Water Management Plan Concept responds to and incorporates City of Ontario Master Plan of Drainage standards. Storm drain improvements listed below would be installed to service the Specific Plan area. Line diameter sizes and other storm drain facility sizes noted herein may be subject to modification by the City of Ontario and/or the San Bernardino Flood Control District as part of the Project final designs and engineering. Where required by the City, storm drains shall be equipped with a hydrodynamic separator(s) to satisfy the statewide trash mandate. Each device will be approved by and listed on the Certified Full Capture System List of Trash Treatment Control Devices of the State Water Resources Control Board (SWRCB). Project stormwater management system improvements include:

- An 8-foot by 13-foot Reinforced Concrete Box (RCB) in the segment of Eucalyptus Avenue located between Walker Avenue and Vineyard Avenue;
- A 3-foot by 6-foot RCB, a double 4-foot by 8-foot RCB, a double 8-foot by 9-foot RCB, and a double 12-foot by 10-foot RCB in various segments of Merrill Avenue between the midpoint of the southerly boundary of Planning Area 2 and Carpenter Avenue;
- A 24-inch storm drain line in the segment of Walker Avenue located between the southerly boundary of Planning Area 1A and Merrill Avenue;
- A 120-inch storm drain line in the segment of Grove Avenue located between Eucalyptus Avenue and Merrill Avenue (with a point of connection to the existing open flood channel located south of the intersection of Merrill Avenue and Grove Avenue); and
- An 8-foot by 13-foot RCB in the segment of Vineyard Avenue located between Merrill Avenue and Eucalyptus Avenue.



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 1.2-7
Conceptual Storm Drain Plan

- Additionally, the developer(s) of the Project may be conditioned to improve the existing open flood channel located south of the intersection of Merrill Avenue and Grove Avenue. Improvements may consist of either lowering the elevation of the existing earthen channel or installing a double 10-foot by 6-foot RCB within the existing earthen channel to connect to an existing RCB located at the southerly terminus of the existing earthen flood channel. The ultimate solution will be determined during the final Project design and engineering process.
- On-site storm drain improvements would include storm water detention/retention/water quality basins, which would capture, treat, and provide controlled release of storm water discharges to the public storm drain system.

Planning Areas 1, 1A, and 2 would drain southerly, the drainage ultimately flowing into either a water quality basin located in the southwest portion of Planning Area 2, the existing flood channel located south of the intersection of Merrill Avenue and Grove Avenue, or to the RCB drainage system in Merrill Avenue, which would then convey flows easterly to the Cucamonga Channel.

Storm water flows from Planning Areas 3 and 3A would drain southerly, the drainage ultimately flowing into either the 24-inch line within Walker Avenue or to the RCB system in Merrill Avenue.

Planning Areas 4 and 4A would also drain southerly, the drainage ultimately flowing to either a storm drain line installed in Baker Avenue or to the RCB system in Merrill Avenue.

Planning Areas 5, 5A, 6 and 6A would drain southerly, the drainage ultimately flowing to the 8-foot by 13-foot RCB in Vineyard Avenue or the double 8-foot by 9-foot RCB in Merrill Avenue.

Stormwater discharges from Planning Areas 3, 3A, 4, 4A, 5, 5A, 6, and 6A would ultimately drain easterly to an existing inlet connection to the Cucamonga Creek Channel

via the existing double 12-foot by 10-foot RCB in Merrill Avenue (east of Carpenter Avenue).

1.2.4.5 Dry Utilities/Fiber Optics Plan

Figure 1.2-8 presents the Project Dry Utilities Infrastructure Plan Concept. Please refer also to correlating discussions presented at EIR Section 3.0, *Project Description*; and EIR Section 4.12, *Utilities & Services*.

Dry utility lines (e.g., natural gas lines, electric lines) would be installed within joint trenches in Merrill Avenue and would connect to existing lines in Merrill Avenue to the west of Grove Avenue, and to existing lines in Merrill Avenue to the east of Carpenter Avenue. Lateral dry utility lines within joint trenches would be installed in Grove Avenue, Vineyard Avenue, and Eucalyptus Avenue. The lateral dry utility line within Eucalyptus Avenue would connect to existing dry utility lines in Merrill and Archibald Avenue to the east. The lateral dry utility lines within Grove Avenue and Vineyard Avenue would connect to the primary dry utility lines within Merrill Avenue.

Dry utilities internal to the Specific Plan Area would be installed underground in accordance with applicable purveyor standards and specifications and to the satisfaction of the City Engineer. The locations and configurations of utilities connections, transformers, switches, pull boxes, and manholes would be determined in conjunction with final Project designs and engineering. Existing power poles located along Eucalyptus Avenue and Merrill Avenue will be undergrounded as part of the Specific Plan's buildout.

The Specific Plan Fiber Optics Plan is illustrated at Figure 1.2-9. Fiber optic lines would be installed on- and off-site in accordance with the City of Ontario's Master Plan standards. Per the City of Ontario's Master Fiber Optic Plan, lines will be installed in Merrill Avenue between Grove Avenue and Carpenter Avenue, Grove Avenue abutting Planning Areas 1 and 2; in Eucalyptus Avenue from Grove Avenue to Carpenter Avenue; and in Vineyard Avenue abutting Planning Areas 5 and 6.

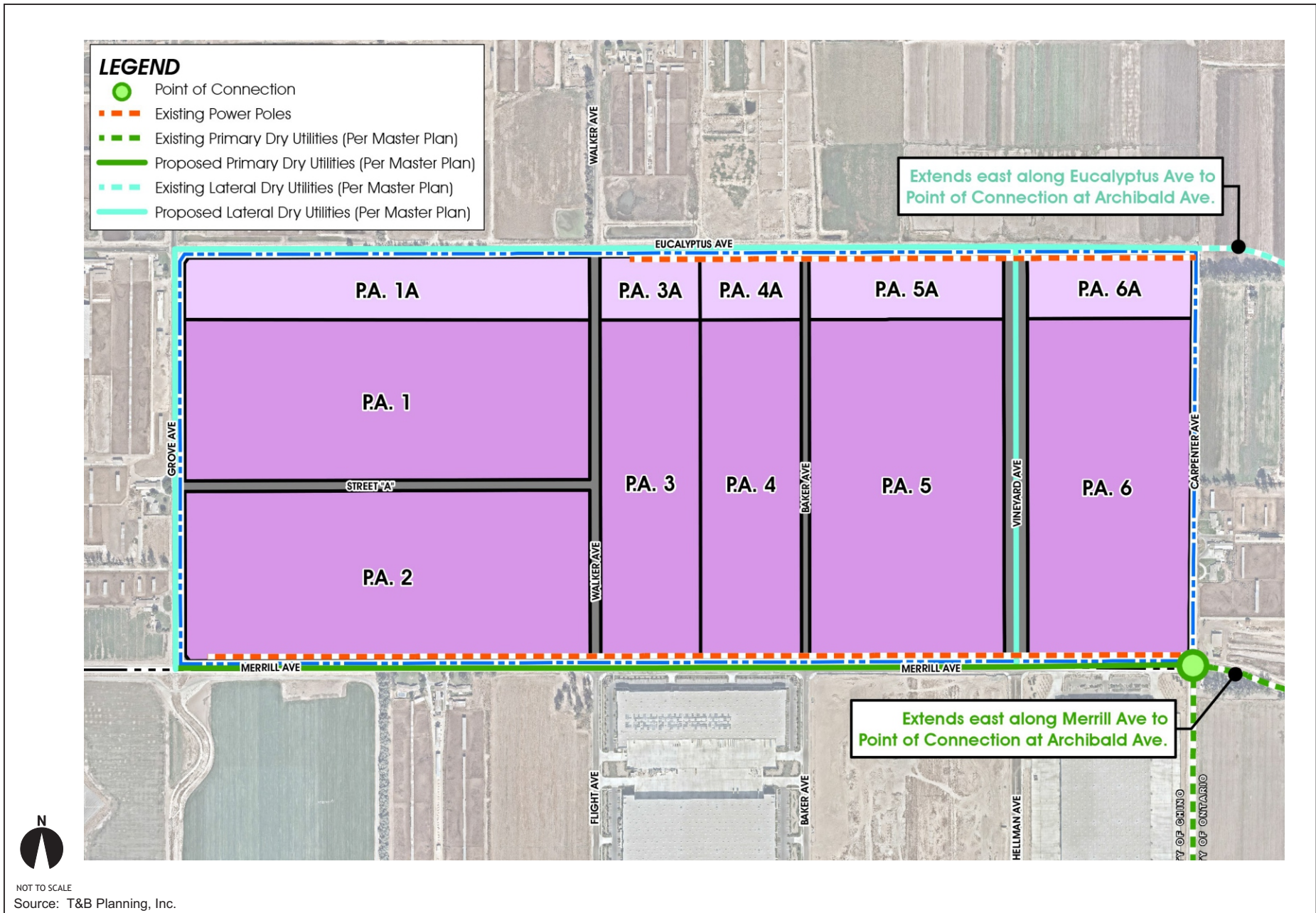
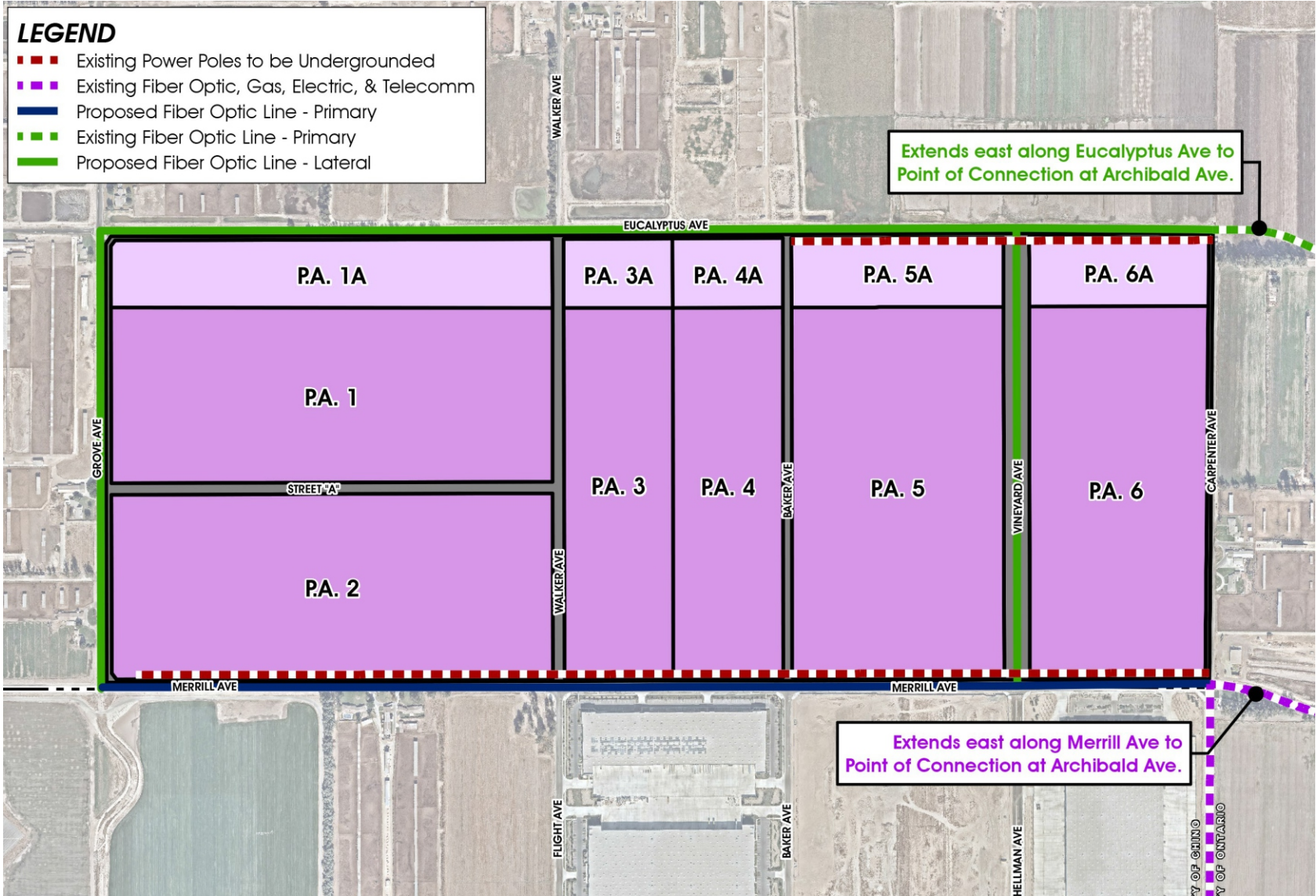


Figure 1.2-8
Dry Utilities Plan



LEGEND

- ■ ■ Existing Power Poles to be Undergrounded
- ■ ■ Existing Fiber Optic, Gas, Electric, & Telecomm
- Proposed Fiber Optic Line - Primary
- ■ ■ Existing Fiber Optic Line - Primary
- Proposed Fiber Optic Line - Lateral

Extends east along Eucalyptus Ave to Point of Connection at Archibald Ave.

Extends east along Merrill Ave to Point of Connection at Archibald Ave.



NOT TO SCALE
Source: T&B Planning, Inc.

Backbone fiber optics components (conduits, hand holes, tracer wire, and fiber) will be placed underground within a duct and structure system to be installed in a joint trench within adjacent streets. Within the Specific Plan Area, in-tract fiber and conduit will be installed per the City's in-tract fiber optic design guidelines (see: https://www.ontarioca.gov/sites/default/files/Ontario-Files/Information-Technology/2014-12-16_in-tract_designguidelines.pdf).

Maintenance of the installed fiber optic system will be the responsibility of the City/Special District. Development of the Project requires installation of all fiber optic infrastructure and peripheral equipment necessary to service the Specific Plan as a stand-alone development.

1.2.5 Project Design Features

Design features proposed by the Applicant and incorporated in the Project would promote efficient use of energy and other resources, would further City conservation and sustainability goals and strategies, and would diminish the Project's potential environmental effects. In consultation with the Lead Agency, final designs of Project buildings, site plans, and improvements would incorporate the following:

- All Project buildings will be LEED Certified;
- Building and site designs will facilitate and incorporate use of renewable energy sources, including roofs structurally designed to support solar photovoltaic (PV) panels;
- Building and site designs will incorporate conduit and infrastructure for electric car chargers;
- Building and site designs will incorporate conduit and infrastructure for electric truck chargers;
- To minimize the potential for on-site truck idling, site plans will be designed to ensure adequate circulation and access for trucks;
- Truck trailer parking areas will be designed and configured to avoid vehicle stacking at the Project site access point and along adjacent streets;
- LED Lighting will be provided throughout the Project (interior and exterior);

- Project grading will be balanced, thereby minimizing potential requirements for truck conveyance of soil import/export;
- Project warehouse designs will provide 40-foot or higher interior clear heights, allowing for greater storage per square foot of building, reducing building footprints, and generally reducing construction material and energy demands;
- Site designs will incorporate pedestrian/bicycle/multi-use paths and supporting amenities;
- The Project Construction and Demolition Waste Management Plan will be designed and implemented to yield a minimum of 90 percent recycled/salvaged materials.

1.2.6 Specific Plan Development Regulations

The proposed Specific Plan Development Regulations address physical requirements and attributes of development within the Specific Plan area including, but not limited to: building/facility setbacks, lot coverage requirements, and maximum building heights. In instances where the Specific Plan is silent, applicable development regulations of the City of Ontario Municipal Code would apply. See also: Merrill Commerce Center Specific Plan, Chapter 5, *Development Regulations*.

1.2.7 Specific Plan Design Guidelines

The Specific Plan document proposes architectural and landscape Design Guidelines that would establish the quality and character of the built environment within the Specific Plan Area. More specifically, the proposed Design Guidelines would provide criteria for architecture, lighting, signage, and landscape design. In instances where the Specific Plan is silent, applicable design guidelines of the City of Ontario Municipal Code would apply. See also: Merrill Commerce Center Specific Plan, Chapter 6, *Design Guidelines*.

1.3 PROJECT OBJECTIVES

The primary goal of the Project is the development of the subject site with a productive mix of business park and industrial uses. Complementary Project Objectives include the following:

- Implement a Specific Plan development supporting business park and industrial uses providing a broad range of long-term employment opportunities.
- Implement business park and industrial uses providing a broad range of additional construction employment opportunities.
- Provide safe and convenient access for trucks in a manner that minimizes any potential disruption to residential areas.
- Provide business park and industrial uses near existing roadways and freeways to reduce traffic congestion and air emissions.
- Facilitate goods movement locally, regionally, nationally, and internationally.
- Provide land uses that are compatible with surrounding land uses and that would not conflict with the policies and environmental constraints identified in the Policy Plan.
- Support the Policy Plan vision for urbanization of the Ontario Ranch area of the City.
- Establish new development that would further the City's near-term and long-range fiscal goals.
- Improve the regional jobs/housing balance.

1.4 DISCRETIONARY APPROVALS AND PERMITS

Anticipated discretionary actions, permits, and consultation(s) necessary to approve the Project are summarized below.

1.4.1 Discretionary Actions

CEQA Guidelines Section 15124 states in pertinent part that if “a public agency must make more than one decision on a project, all its decisions subject to CEQA should be listed...” Requested decisions, or City discretionary actions, necessary to realize the Merrill Commerce Center Specific Plan would include:

- Certification of the Merrill Commerce Center Specific Plan EIR;
- Approval of Policy Plan (General Plan) Amendment (Land Use);
- Adoption of the Merrill Commerce Center Specific Plan;
- Approval of Parcel Maps;
- Adoption of a Development Agreement; and
- Cancellation of the existing Williamson Act Contracts on APN 0218-261-35 (Contract #69-147, initiated in 1973); and APNs 1054-151-02, 1054-161-02, 1054-161-03, 1054-201-02 and 1054-351-02 (Contract #70-167, initiated in 1970).³

1.4.2 Consultation and Permits

CEQA Guidelines Section 15124 also states that environmental documentation should, to the extent known, list other permits or approvals required to implement the Project. Anticipated permits and consultation necessary to realize the Project would likely include, but would not be limited to, the following:

- Permitting by/through the Regional Water Quality Control Board (RWQCB) pursuant to requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit;
- Permitting by/through the South Coast Air Quality Management District (SCAQMD) for certain equipment or land uses that may be implemented within the Project area;
- Consultation with requesting Tribes as provided for under *AB 52, Gatto. Native Americans: California Environmental Quality Act*; and *SB 18, Burton. Traditional tribal cultural places*;
- Review and approval by the City for conformance with the Compatibility Plan for Chino Airport;
- Review and approval by the Federal Aviation Administration (FAA) for potential airspace obstruction(s), if any;

³ A notice of non-renewal dated September 14, 2017, and recorded, has initiated the termination process for Contract #70-167.

- CWA Section 404 authorization from the Army Corps of Engineers (Corps);
- Clean Water Act (CWA) Section 401 Water Quality Certification;
- California Department of Fish and Wildlife (CDFW) Section 1602 Streambed Alteration Agreement(s);
- CDFW consultation/coordination addressing protected species impact mitigation; and
- Various construction, grading, and encroachment permits from affected agencies allowing implementation of Project facilities including construction/modification of utilities systems and roadways.

1.5 INITIAL STUDY

The City of Ontario, through the Initial Study process, has determined that the Project has the potential to cause or result in significant environmental impacts, and warranted further analysis, public review, and disclosure through the preparation of an EIR. The Initial Study (IS) and associated EIR Notice of Preparation (NOP), dated April 2019, were forwarded to the California Office of Planning and Research, State Clearinghouse (SCH), and circulated for public review and comment. The State Clearinghouse established the public comment period for the NOP/IS as April 12 through May 13, 2019. The assigned State Clearinghouse reference for the Project is SCH No. 2019049079. The Initial Study, NOP, and NOP responses are presented at Appendix A of this EIR.

1.6 IMPACTS NOT FOUND TO BE POTENTIALLY SIGNIFICANT

The following discussions identify those environmental issues that have been determined not to be potentially significant, and consistent with *CEQA Guidelines* Section 15143, *Emphasis*, need not be addressed in detail in the EIR. Accordingly, the specific issues listed are not substantively discussed within the body of this EIR. Any related technical studies and references are noted in the following discussions. A complete list of references is provided at the conclusion of the EIR. All cited materials are available at, or can be made available by contacting, the City of Ontario Planning Department.

Aesthetics

There are no scenic vistas within the Project site, nor would the Project otherwise adversely affect a designated scenic vista. Views of the San Gabriel Mountains, located to the north of the City, are the dominant scenic resource in the area. As described in the Ontario Plan Draft EIR, "... the scale and design of the City, including its land uses, would not deter views of the mountain backdrop" (Ontario Plan Draft EIR, p. 5.1-8).

The City of Ontario is served by three freeways, including Interstate 10 (I-10), Interstate 15 (I-15), and State Route 60 (SR-60). The segments of these freeways located within the City are not designated as scenic highways by the California Department of Transportation. There are no scenic resources, including, but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway located within the Project site. Nor does the Project propose or require facilities or operations that would otherwise substantially damage such resources.

The Project is located in an urbanized area and is subject to those provisions of the City of Ontario Policy Plan (Policy Plan) and City of Ontario Development Code governing scenic quality. The Policy Plan Community Development Element establishes multiple Policies that protect scenic resources and promote high quality, visually compatible development. For example, Community Design Element Policy CD 1-2 requires that "development in growth areas to be distinctive and unique places within which there are cohesive design themes"; Policy CD 1-5 requires that "all major north-south streets be designed and redeveloped to feature views of the San Gabriel Mountains, which are part of the City's visual identity and a key to geographic orientation. Such views should be free of visual clutter, including billboards and may be enhanced by framing with trees"; Policy CD 2-1 encourages "all development projects to convey visual interest and character . . ."; Policy CD 2-15 supports "excellence in design and construction quality through collaboration with trade and professional organizations that provide expertise, resources and programs for developers, builders and the public."⁴ The City would review development proposals for conformance with Policy Plan Community Development Element Policies prior to issuance of development permits.

⁴ City of Ontario. "Policy Plan." The Ontario Plan, City of Ontario, www.ontarioplan.org/policy-plan/.

Additionally, all development proposals within the Specific Plan Area would be required to conform to the Specific Plan Development Regulations, Design Guidelines, and Implementation Plan (Specific Plan Chapters 5, 6, and 7 respectively). Conformance with the Specific Plan further ensures that the Project would not substantially degrade the existing visual character or quality of the site and its surroundings.

The Project would create new sources of lighting, including ground, building-mounted, wall-mounted, and pole-mounted lighting fixtures. The Project would also provide illuminated exterior signs. The City would assure that the proposed Merrill Commerce Center Specific Plan, as implemented, contains Development Regulations and Design Guidelines that would, at a minimum, conform to City regulations addressing lighting and light overspill (see: Development Code, Division 6.01 – *District Standards and Guidelines, Lighting*). All subsequent development within the Specific Plan area would be required to conform with the Specific Plan Development Regulations and Design Guidelines addressing light, glare and overspill. Conformance with the Specific Plan would minimize the potential for the Project to result in adverse light and glare impacts. Further all development proposals would be reviewed by the City for conformance with applicable light/glare provisions of the Compatibility Plan for Chino Airport.

As such, the Project would not result in potentially significant impacts for the following considerations:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- In a non-urbanized area, substantially degrade the existing visual character or quality of the site and its surroundings; and
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Agriculture and Forest Resources

There is currently no land in the City of Ontario that qualifies as forest land or timberland. Neither the Policy Plan nor the City's Development Code provide such designations. As such, the Project will not conflict with existing zoning for, or cause rezoning of, forest land or timberland, or result in the loss or conversion of forest land.

The Project does not involve other changes to the environment which could result in the conversion of farmland or forest land to other uses beyond those discussed in Section 4.11, *Agricultural Resources*.

Based on the preceding, the Project would not result in potentially significant impacts for the following considerations:

- Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned "Timberland Production;"
- Result in the loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Air Quality

Temporary, short-term odor releases are potentially associated with Project construction activities. Potential sources of odors associated with construction activities would include, but not be limited to: asphalt/paving materials, glues, paint, and other architectural coatings. Construction-source odor impacts are minimized through compliance with established regulations (Code of Federal Regulations [CFR], Subpart H-*Materials Handling, Storage Use and Disposal*, et al.) addressing construction materials storage, use, and disposal. In pertinent part the isolation/containment devices or mechanisms specified under these regulations prevent significant release of odors. The Project would be required to comply with these regulations.

Uses typically considered to be sources of odors or other emissions that could adversely affect a substantial number of people include agricultural operations, cement plants, wastewater treatment plants, and the like. The Project proposes none of these. Rather, the Project would implement contemporary high-cube fulfillment center warehouse and business park uses. Refuse generated by the Project uses could be a source of localized odors. Project refuse is required to be collected, contained, and disposed of as stipulated in the City of Ontario Municipal Code (see: Municipal Code, Chapter 3: *Integrated Solid Waste Management*).

Further, all Project construction activities, uses and occupancies would be required to conform to SCAQMD Rule 402. Rule 402 provides in pertinent part that there shall be no “discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

Based on the preceding, the Project would not result in potentially significant impacts for the following consideration:

- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Cultural Resources

There are no known formal cemeteries or informal burial sites within the Project site or in off-site areas that would likely be affected by Project construction activities. The likelihood of encountering human remains in the course of Project development is therefore considered minimal. Further, as required by California Health and Safety Code Section 7050.5, should human remains be found, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains were found to be prehistoric, the coroner would coordinate

with the California Native American Heritage Commission as required by State law.

Based on the preceding, the Project would not result in potentially significant impacts for the following consideration:

- Disturb any human remains, including those interred outside of formal cemeteries.

Geology and Soils

The Ontario Plan Draft EIR (Figure 5.7-2) identifies active and/or potentially active fault zones in the region, none of which are located within the City. There are no active faults known with the Project site, or in off-site areas that would be affected by Project construction activities. The Project site and potentially affected off-site locations are outside any Fault Rapture Hazard Zone (formerly Alquist-Priolo Zone). The Project does not propose actions or facilities that would otherwise exacerbate known or probable adverse earthquake fault conditions.

The Project site topography evidences little internal difference, with a general northeast to southwest downward trending slope. Elevations within the Project site range from approximately 686 feet above mean sea level (amsl) at the northeast corner of the Project site, to approximately 651 feet amsl at the southwest corner of the Project site – an elevation difference of approximately 35 feet over approximately 1.3 miles with average internal slopes ranging between +2.3 % to -2.6% (Google Earth Imagery 2018). The Project site is not considered internally susceptible to land sliding. Any slopes manufactured in the course of Project development would be subject to review and approval by the City Building Department to ensure their stability. Adjacent properties also present little topographic relief.

No septic tanks or other alternative wastewater disposal systems are proposed as part of the Project. The Project does not propose or require facilities or programs that would substantively affect off-site septic systems or alternative wastewater disposal systems.

Based on the preceding, the Project would not result in potentially significant impacts under the following topics:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault;
- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving landslides; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Hazards and Hazardous Materials

The Project site is located in an urbanizing area, and no wildlands are located in the vicinity of the Project site. Fire protection services are provided to the City and the Project site by the Ontario Fire Department. Pre-construction coordination with Fire Department staff and adherence to local fire regulations during construction and operation of the Project would be required. The Project site is located in an urbanizing area, and no wildlands are located in the vicinity of the Project site. Fire protection services are provided to the City and the Project site by the Ontario Fire Department. Preconstruction coordination with Fire Department staff and adherence to local fire regulations during construction and operation of the Project would be required. The City and Fire Department would require that fire prevention/fire suppression measures are incorporated in the Project designs and that water delivery systems serving the Project site provide adequate fire flow. Creation and maintenance of firebreaks and fire-defensible spaces adjacent to building and roadways as required by the City and Fire Department would further reduce the potential for exposure to wildland fires and the spread of wildland fires. The City would also enforce weed abatement measures, minimizing potential fire fuel loads. Lastly, as noted in the Ontario Plan Draft EIR, “development of the Ontario Ranch [including the Project site] would actually reduce fire

hazard risks for that area because, upon buildout, it would eliminate brush, dry grass, manure, and hay” (Ontario Plan Draft EIR, p. 5.8- 29).

Based on the preceding, the Project would not result in potentially significant impacts under the following topic:

- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Hydrology and Water Quality

Direct additions or withdrawals of groundwater are not proposed by the Project. Further, construction proposed by the Project would not involve substructures or other intrusions at depths that would significantly impair or alter the direction or rate of flow of groundwater. Water is provided throughout the City by the City of Ontario Utilities Department. Groundwater which may be consumed by the Project and the City of Ontario, as a whole, would be recharged pursuant to the Department’s policies and programs. The Project site is not a designated groundwater recharge area. The Project does not propose or require facilities or operations that would otherwise adversely affect designated recharge areas.

Project construction activities would temporarily expose underlying soils, thereby increasing their susceptibility to erosion. Potential erosion impacts incurred during construction activities are mitigated below the level of significance through the Project’s mandated compliance with a City-approved Storm Water Pollution Prevention Plan (SWPPP), as well as compliance with SCAQMD Rules that prohibit grading activities and site disturbance during high wind events. At Project completion, potential soil erosion impacts in the area will be resolved, as pavement, roads, buildings, and landscaping are established, overcovering previously exposed soils.

Based on the preceding, the Project would not result in potentially significant impacts under the following topics:

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; or
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.

Land Use and Planning

Pursuant to the Specific Plan as approved by the City, the Project would establish a pattern of cohesive and complementary land uses. The Specific Plan configuration and orientation of land uses, combined with integral development standards and design guidelines, act to preclude division or disruption of an established community, whether that community be internal or external to the Project site.

Physical arrangement of surrounding areas would not be modified or otherwise affected by the Project. Based on the preceding discussion, the Project's potential to disrupt or divide the physical arrangement of an established community is considered less-than-significant.

Based on the preceding, the Project would not result in potentially significant impacts under the following topic:

- Physically divide an established community.

Mineral Resources

Mineral resources in the City are limited to construction aggregates such as sand and gravel. There are currently no permitted mining operations located within the City (Ontario Plan Draft EIR, p. 5.11-2). The Ontario Plan Draft EIR at Figure 5.11-1, *Mineral Resources Zones*, indicates that the Project site is classified pursuant to the California Geological Survey as Mineral Resource Zone 3 (MRZ-3). The Ontario Plan Draft EIR

concludes that “[d]evelopment in a MRZ-3 [area] would not result in significant impacts as mineral resources of statewide or local importance are not identified in the California Geological Survey PC maps” (Ontario Plan Draft EIR, p, 5.11-6).

Based on the preceding, the Project would not result in potentially significant impacts under the following topics:

- Result in the loss of availability of a known mineral resource that would be of value to the region and to the residents of the state; and
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Population and Housing

Limited single-family residential uses (fewer than 20 single-family residences) exist within the Project site. These residences are ancillary to the site’s current dairy/agricultural/trucking operations and would be demolished along with all other surface improvements as part of the Project site preparation activities. The loss of these residential units in the context of the City’s existing 50,000 +/- housing units⁵ is not considered substantial.

Based on the preceding, the Project would not result in potentially significant impacts under the following topic:

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Public Services

Fire suppression and emergency response services for the Project would be provided by the Ontario Fire Department. The Ontario Plan Draft EIR recognizes the potential for

⁵ <http://www.ontarioplan.org/wp-content/uploads/sites/4/2016/05/29467.pdf>

development pursuant to the Ontario Plan, including development of the Ontario Ranch (formerly known as New Model Colony, NMC) area encompassing the Project site, to result in increased demands for fire protection services. (Ontario Plan Draft EIR, p. 5.14-5).

The Ontario Plan Draft EIR also recognizes that evaluation of potential environmental impacts resulting from the construction or expansion of new or modified fire protection facilities would be speculative until such time the location(s) of such facilities are determined. Environmental review of new or modified fire stations would be conducted when and as required by the City.

The Project does not propose or require construction or modification of fire protection facilities. The Project site is not designated or proposed as the location for new or modified fire protection facilities. Incremental fire protection service demands generated by the Project are offset through Project payment of City of Ontario General City (GC) Development Impact Fees. A portion of the City's GC Development Impact Fees are allocated for fire protection services. The Project Applicant would pay incumbent City GC Development Impact Fees at issuance of building permit(s).

The Ontario Fire Department has not indicated that substantial expansion of fire protection facilities or new fire protection facilities would be required as part of this Project. The Ontario Plan Draft EIR also recognizes that evaluation of potential environmental impacts resulting from the construction or expansion of new or modified fire protection facilities would be speculative until such time the location(s) of such facilities are determined. Environmental review of new or modified fire protection facilities would be conducted when and as required by the City.

Additionally, to the satisfaction of the Ontario Fire Department, the Project would comply with City and Fire Department fire prevention and suppression requirements, including building/site design requirements, fire flow adequacy, and provisions for emergency access, thereby reducing potential increased demands for fire protection services.

Police protection services for the Project would be provided by the Ontario Police Department. The Ontario Plan Draft EIR (see discussion excerpted below) recognizes the

potential for development pursuant to the Ontario Plan, including development of the Ontario Ranch (formerly known as New Model Colony, NMC) area encompassing the Project site, to result in increased demands for police protection services. (Ontario Plan Draft EIR, p. 5.14-8). The Ontario Police Department has not indicated that substantial expansion of police facilities or new police facilities would be required as part of this Project. The Project does not propose or require construction or modification of police protection facilities. Evaluation of potential environmental impacts resulting from the construction or expansion of new or modified police protection facilities would be speculative until such time the location(s) of such facilities are determined. Environmental review of new or modified police protection facilities would be conducted when and as required by the City.

The Project site is not designated or proposed as the location for new or modified police protection facilities. Incremental police protection service demands generated by the Project are offset through Project payment of City of Ontario General City (GC) Development Impact Fees. A portion of the City's GC Development Impact Fees are allocated for police protection services. The Project Applicant would pay incumbent City GC Development Impact Fees at issuance of building permit(s).

Additionally, the Project site plan concept and proposed building designs would be reviewed by the Ontario Police Department to ensure incorporation of appropriate safety and security elements. Such design features would include secure building designs, defensible spaces, and area and facility security lighting. These design features would act to reduce Project demands for police protection services.

The Project site lies within the Chino Valley Unified School District. The Project does not propose residential uses that would result in populations of resident school-aged children requiring public education, and would therefore not directly cause or contribute to a need to construct new or physically altered public school facilities. Indirectly, the Project may contribute to area demands for school services if Project employees and their school age children would relocate to school districts serving the City.

The Project does not propose or require construction or modification of school facilities. The Project site is not designated or proposed as the location for new or modified school facilities. Project incremental impacts to school services would be offset through payment of school impact fees. The Project Applicant would pay incumbent school impact fees at issuance of building permit(s). Payment of school impact fees would reduce the Project's potential impacts to school services to levels that would be less-than-significant.

Uses proposed by the Project would not increase demands for parks or parks services.

Development of the Project would require established public agency oversight including, but not limited to, various plan check and permitting actions by the City. Impacts of the Project would fall within routine tasks of these agencies/departments and are paid for via plan check and inspection fees. Impacts of the Project would not be of such magnitude that new or physically altered facilities would be required. There are no known or probable other public facilities that would be substantially affected by the Project.

Based on the preceding, the Project would result in less-than-significant impacts under the following topics:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts for any of the public services:
 - Fire Protection;
 - Police Protection;
 - Schools;
 - Parks; or
 - Other Public Facilities.

Recreation

The Project does not propose residential development, and would not directly contribute to resident populations that would increase the use of existing neighborhood and regional

parks or other recreational facilities. Job opportunities created by the Project may result in relocation of persons to the City that could indirectly contribute to resident populations, demands for new housing, and resulting increased use of existing neighborhood and regional parks or other recreational facilities. New residential development within the City is required to pay City GC Development Impact Fees, a portion of which would be allocated for parks facilities, acting to offset incremental demands on neighborhood and regional parks or other recreational facilities.

The Project does not propose recreational facilities. Based on the discussion above, the Project would not require the construction or expansion of recreational facilities.

Based on the preceding, the Project would result in less-than-significant impacts under the following topics:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated; and
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Wildfire

CAL FIRE maintains California Fire Hazard Severity Zone Maps, including maps for State responsibility areas, as well as local responsibility areas.⁶ As shown on the State responsibility map for southwestern San Bernardino County, the City of Ontario is located within a local responsibility area. According to the local responsibility map, Ontario is located in a non-very high fire hazard severity zone (Non-VHFHSZ).

⁶ http://www.fire.ca.gov/fire_prevention/fhsz_maps_sanbernardinow

As such, the Project is not located within or near a state responsibility area, or within an area classified as a very high fire hazard severity zone. All development within the Specific Plan area would be required to comply with City building and Fire Codes. All building plans within the City are reviewed by the Ontario Fire Department to ensure their compliance with the City's fire code. Additionally, the Ontario Plan Draft EIR at page 5.8-29 states, ". . . development of the Ontario Ranch would actually reduce fire hazard risks for that area because, upon buildout, it would eliminate brush, dry grass, manure, and hay."

Based on the preceding, the Project would result in less-than-significant impacts under the following topics:

- Substantially impair an adopted emergency response plan or emergency evacuation plan;
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

1.7 AREAS OF CONCERN OR CONTROVERSY

Section 15123 of the *CEQA Guidelines* requires that the EIR summary identify areas of potential concern or controversy known to the lead agency, including issues raised by other agencies and the public. Issues of concern were identified by the Lead Agency,

through responses to the Project Initial Study (IS)/Notice of Preparation (NOP), and other communications addressing the Project and the Project EIR.

Responses received pursuant to distribution of the NOP and Public Scoping Meeting are presented at EIR Appendix A. Table 1.7-1 presents a list of NOP respondents, and a corresponding summary of NOP comments, indicated by *italicized text*. Responses to comments, together with correlating EIR references are indicated in subsequent statements. Unless otherwise noted, all NOP respondent comments are addressed within the body of the EIR.

**Table 1.7-1
List of NOP Respondents and Summary of NOP Comments**

| Respondent | Summary of Comments |
|--|--|
| <u>State Agencies</u> | |
| Office of Planning and Research - State Clearinghouse (SCH) | <i>SCH provided receipt and record of distribution of the NOP/IS and established the NOP review and comment period of April 12 through May 13, 2019. SCH assigns the SCH No. 2019049079 to the Project environmental documents.</i> EIR Appendix A includes a copy of the Project IS/NOP and NOP Responses. |
| State of California Native American Heritage Commission (NAHC) | <i>NAHC provides procedural guidance in evaluating and determining potential impacts to cultural resources and Tribal Cultural Resources (TCRs).</i> The EIR evaluates potential impacts to cultural resources consistent with NAHC guidelines and requirements. Please refer to EIR Section 4.10, <i>Cultural Resources/Tribal Cultural Resources</i> . |
| California Air Resources Board (CARB) | <i>CARB identifies potential air quality impact concerns including potential health risks associated with air pollutants generated during Project construction and Project operations.</i> Potential air quality impacts of the Project, including potential health risks associated with air pollutant emissions generated during Project construction and Project operations are addressed at EIR Section 4.3, <i>Air Quality</i> . As matter of clarification for the commentator, the Project evaluated in the EIR assumes 701,400 square feet of high-cube cold storage warehouse use. |
| California Department of Conservation (DOC) | <i>DOC identifies potential impacts to agricultural resources and Williamson Act contract properties.</i> Potential agricultural resources impacts are considered and addressed at EIR Section 4.11, <i>Agricultural Resources</i> . Cancellation of the existing Williamson Act Contracts are identified as a Project Discretionary Action. |
| California Department of Transportation District 8 (Caltrans) | <i>Caltrans notes its roles as the owner and operator of the State Highway System (SHS) and as a CEQA Responsible Agency. Caltrans notes that the Project traffic may impact the SHS and recommends that a Traffic Impact Analysis (TIA) be prepared for the Project and submitted to Caltrans prior to circulation of the DEIR. Caltrans provides various design</i> |

**Table 1.7-1
List of NOP Respondents and Summary of NOP Comments**

| Respondent | Summary of Comments |
|---|--|
| | <p><i>recommendations for transportation system improvements that may be implemented by the Project.</i></p> <p>Caltrans is recognized as the owner and operator of the SHS and as a CEQA Responsible Agency. Consistent with Caltrans recommendations, a TIA has been prepared for the Project. The TIA is presented at EIR Appendix C and has been provided to Caltrans under separate cover. Caltrans transportation system design recommendations are recognized and have been incorporated where appropriate.</p> |
| County/Regional Agencies | |
| <p>Santa Ana Regional Water Quality Control Board (SARWQCB)</p> | <p><i>SARWQCB recommends that DEIR address potential impacts to water quality resulting from demolition of dairies to include disposition of manure, wastewater and soils. SARWQCB recommends that DEIR address potential increase of stormwater runoff through on-site and/or off-site dairy production areas. SARWQCB recommends that DEIR include pertinent requirements of Regional Board Order No. R8-2010-0036, for controlling post-construction stormwater pollutant discharges.</i></p> <p>Potential Project hydrology/water quality impacts, including those noted by SARWQCB, are addressed at DEIR Section 4.7, <i>Hydrology/Water Quality</i>. In total stormwater management systems implemented by the Project would result in net improvement in existing drainage and water quality conditions. Disposition of potentially contaminated soils is addressed at EIR Section 4.6, <i>Hazards/Hazardous Materials</i>. The Project Water Quality Management Plan (WQMP, EIR Appendix H) responds to Regional Board Order No. R8-2010-0036 requirements for controlling post-construction stormwater pollutant discharges.</p> |
| <p>San Bernardino County, Department of Public Works (DPW)</p> | <p>DPW review and permitting requirements are identified. DPW requests inclusion on the circulation/notification lists for all Project notices, public reviews, and public hearings.</p> <p>Potential environmental impacts resulting construction of off-site infrastructure improvements, including master plan drainage improvements are comprehensively addressed in the EIR. The Project Applicant will comply with all DPW review and permitting requirements. Concurrent with final designs of master plan drainage improvements, the City will coordinate with DPW and other extra-jurisdictional agencies in instances where master plan drainage improvements would interface with or potentially affect DPW or other extra-jurisdictional facilities. DPW has been included on the circulation/notification lists for all Project notices, public reviews, and public hearings.</p> |
| <p>South Coast Air Quality Management District (SCAQMD)</p> | <p><i>SCAQMD provides detailed guidance in regard to the preparation of the Project air quality impact analysis and greenhouse gas analysis, and requests that modeling data and electronic copies air quality technical studies accompany submittal of the Draft EIR to SCAQMD.</i></p> <p>The Project Air Quality Impact Analysis (AQIA) and Greenhouse Gas Analysis (GHGA) are presented at EIR Appendices D and E, respectively. Specific topics referenced by SCAQMD in their NOP response are addressed at EIR Sections 4.3, <i>Air Quality</i>; and 4.4, <i>Greenhouse Gas Emissions</i>. Modeling data files, technical</p> |

**Table 1.7-1
List of NOP Respondents and Summary of NOP Comments**

| Respondent | Summary of Comments |
|-----------------------|--|
| | studies and supporting air quality documentation have been provided to SCAQMD in electronic format(s) as requested. |
| Local Agencies | |
| City of Chino | <p><i>The City of Chino requests review of infrastructure improvements that may affect off-site areas in the City of Chino. The City of Chino requests review of the Project traffic study scoping agreement including proposed trip distribution and analyzed Study area intersections.</i></p> <p>The EIR comprehensively addresses potential impacts associated with implementation of proposed infrastructure improvements, including potential impacts at off-site locations. The City of Ontario will coordinate final designs and construction of infrastructure improvements with all potentially affected extra-jurisdictional agencies.</p> <p>The TIA Scoping Agreement is provided at TIA Appendix 1.1. All potentially affected transportation/traffic facilities located within the City of Chino have been evaluated within the Project TIA. The Project TIA also considers effects of related cumulative projects located in the City of Chino. Please refer also to EIR Section 4.2, <i>Transportation</i>.</p> |

1.8 EIR TOPICAL ISSUES

Based upon the Initial Study analysis, comments received pursuant to circulation of the NOP, and other public/agency input, the analysis of the EIR addresses the following topics:

- Agricultural Resources;
- Air Quality;
- Biological Resources;
- Cultural/Tribal Resources;
- Energy;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Hazards/Hazardous Materials;
- Hydrology/Water Quality;
- Land Use and Planning;
- Noise;

- Population/Housing;
- Transportation; and
- Utilities and Service Systems.

Additionally, EIR Section 5.0, *Other CEQA Considerations*, presents discussions of other mandatory CEQA topics including:

- Cumulative Impact Analysis;
- Alternatives Analysis;
- Growth-Inducing Impacts of the Proposed Action;
- Significant Environmental Effects;
- Significant and Irreversible Environmental Changes; and
- Energy Conservation.

1.9 SUMMARY OF SIGNIFICANT PROJECT IMPACTS

Implementation of the Project as proposed will result in certain impacts which are determined to be significant. These impacts are discussed in detail in the body of the EIR text under their associated topical headings, and are summarized below.

**Table 1.9-1
Summary of Significant and Unavoidable Impacts**

| Environmental Topic | Comments |
|-----------------------|---|
| Transportation | <p>Vehicle Miles Traveled (VMT) Impacts</p> <p>Consistent with to CEQA Guidelines Section 15064.3 requirements (statute effective July 1, 2020) this EIR presents an analysis of the Project’s potential vehicle miles traveled (VMT) impacts. Detailed analysis of the Project’s potential VMT impacts is presented in Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment (Urban Crossroads, Inc.) January 14, 2020 (Project VMT Assessment). The Project VMT Assessment is presented at EIR Appendix C.</p> <p>The Project VMT Assessment estimates the Project VMT/Service Population (Project VMT/SP) and compares the Project VMT/SP to a calculated City Average Existing VMT/SP. Project VMT/SP that would exceed 85 percent of the City Average Existing VMT/SP would be considered a potentially significant VMT Impact. Potentially significant VMT impacts are mitigated through implementation of Transportation Demand Management (TDM) measures. However, even with implementation of proposed TDM measures, Project VMT impacts would be individually and cumulatively significant and unavoidable.</p> |
| Air Quality | <p>EIR Section 4.3, <i>Air Quality</i>, details the Project’s potential air quality impacts. As discussed within that Section, even after compliance with applicable regulations and requirements, and application of</p> |

**Table 1.9-1
Summary of Significant and Unavoidable Impacts**

| Environmental Topic | Comments |
|--------------------------------------|---|
| | <p>mitigation measures, the Project would result in the following significant and unavoidable air quality impacts:</p> <ul style="list-style-type: none"> • The South Coast Air Basin (SCAB, Basin) encompassing the Project site is designated as non-attainment for ozone, PM10, and PM2.5 (VOC and NOX are both ozone precursors; NOX is a precursor to PM10/PM2.5). Project operational-source VOC, NOX, PM10, and PM2.5 emissions regional threshold exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone and PM10/PM2.5) for which the Project region is non-attainment. These are cumulatively significant and unavoidable air quality impacts. • Because a change in land use is proposed under the Project, it is assumed that the emissions generated by the Project's proposed land uses are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is conservatively assumed to conflict with the 2016 AQMP. This is a significant and unavoidable impact. |
| GHG Emissions | <p>EIR Section 4.4, <i>Greenhouse Gases</i>, details the Project's potential GHG emissions impacts. As discussed within that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, the Project GHG could directly or indirectly generate GHG emissions that may have a significant impact on the environment. Further, the Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. These are cumulatively significant and unavoidable impacts.</p> |
| Noise | <p>EIR Section 4.5, <i>Noise</i>, details the Project's potential noise impacts. As discussed within that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, noise impacts associated with the construction of off-site infrastructure improvements would be individually and cumulatively significant and unavoidable for the duration of off-site infrastructure construction activities.</p> |
| Cultural (Historic) Resources | <p>As discussed at EIR Section 4.10, <i>Cultural/Tribal Cultural Resources</i>, 5 buildings or structures within the Project site appear to qualify as Contributors to the New Model Colony / Chino Valley Dairy Historic District (District). These 5 potential Contributors would be demolished to allow for implementation of the Project. Per CCR Title 14, Section 15126.4(b), the demolition or destruction of a historical resource cannot typically be fully mitigated. Demolition of potential District Contributors resulting from the Project is therefore considered a significant and unavoidable impact.</p> <p>The proposed demolition of potential District Contributors within the Project site would considerably and cumulatively contribute to impacts to District historic resources. This is a cumulatively significant impact.</p> |
| Agricultural Resources | <p>As substantiated at EIR Section 4.11, <i>Agricultural Resources</i>, the Project would result in conversion of on-site Farmland to urban uses. Additional conversion of off-site agricultural lands to non-agricultural purposes could also occur as a result of construction of master plan infrastructure improvements supporting the Project. These are considered to be significant and unavoidable impacts. However, the Project would not cause or result in significant and unavoidable agricultural resources impacts and loss of Farmland impacts beyond those already considered and addressed in the Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment EIR, The Ontario Plan EIR, and the [City of Ontario] Infrastructure Master Plans MND. The Project would not result in new significant and unavoidable agricultural resources impacts and loss of Farmland not otherwise occurring pursuant to the Policy Plan Land Use Plan.</p> |

As substantiated within this EIR, all other potential environmental effects of the Project would be less-than-significant or are reduced below levels of significance with application of mitigation measures identified herein. A summary of all Project impacts and proposed mitigation measures is presented in EIR Section 1.11, *Summary of Impacts and Mitigation*.

1.10 ALTERNATIVES TO THE PROJECT

Consistent with provisions of the *CEQA Guidelines*, this EIR evaluates alternatives to the Project that would lessen its significant environmental effects while allowing for attainment of the basic Project Objectives. Alternatives to the Project are described and summarized below. Please refer also to the detailed Alternatives Analysis presented in EIR Section 5.0, *Other CEQA Considerations*; 5.2, *Alternatives Analysis*.

Alternatives to the Project considered in detail include:

- No Project Alternative: No Build;
- No Project Alternative: Development per Existing Policy Plan Land Uses; and
- Reduced Intensity Alternative.

As provided for at *CEQA Guidelines* 15126.6(c), alternatives that were considered by the lead agency but were rejected as infeasible are also identified. These included:

- Alternative Sites;
- “No Threshold Exceedance” Alternative for Significant Transportation Impacts;
- “No Threshold Exceedance” Alternative for Significant Air Quality Impacts;
- “No Threshold Exceedance” Alternative for Significant GHG Impacts;
- “No Threshold Exceedance” Alternative for Significant Noise Impacts;
- Preservation Alternatives for Significant Historical Resources Impacts;
- “No Threshold Exceedance” Alternative for Significant Agricultural Resources Impacts.

1.10.1 No Project Alternatives

1.10.1.2 Overview

The *CEQA Guidelines* require that the EIR include in its evaluation of Alternatives a “No Project” Alternative. Within this analysis, two No Project scenarios are considered – “No Build” and “Development per Existing Policy Plan Land Uses.”

No Project Alternative: No Build

If a No Build scenario were maintained, its comparative environmental impacts would replicate the existing conditions discussions for each of the environmental topics evaluated in this EIR; and comparative impacts of the Project would be as presented under each of the EIR environmental topics. A No Build condition would achieve none of the basic Project Objectives.

No Project Alternative: Development per Existing Policy Plan Land Uses

The No Project Alternative: Development per Existing Policy Plan Land Uses (Existing Policy Plan Land Uses) scenario represents foreseeable development of the subject site pursuant to the site’s current Policy Plan Land Use designations. Table 1.10-1 compares the composition and scope of uses under the Project with development that could result under the Existing Policy Plan Land Uses scenario.

**Table 1.10-1
Site Development Comparison
Project and No Project Alternative: Existing Policy Plan Land Uses**

| Project | No Project Alternative: Existing Policy Plan Land Uses |
|--|---|
| Business Park: 55.1 acres; 1,441,000 building sf | Business Park: 314.7 acres; 8,225,000 building sf |
| N/A | Office Commercial: 43.3 acres; 1,414,600 building sf |
| N/A | General Commercial: 18.3 acres; 318,900 building sf |
| Industrial: 292.8 acres; 7,014,000 building sf | N/A |
| Circulation: 28.4 Acres | N/A |
| Total: 376.3 Acres; 8,455,000 building sf | Total: 376.3 Acres; 9,958,500 building sf |

Sources: Policy Plan Land Use Element; Merrill Commerce Center Specific Plan.

Notes:

1. Maximum building square footage calculated by multiplying the total acreage of each land use by the anticipated floor area ratio (FAR) for the respective land use designation. Per Policy Plan Table LU-02 Land Use Designations Summary Table: Industrial FAR = 0.55; Business Park FAR = 0.60; General Commercial FAR = 0.040; Office Commercial FAR = 0.75.

1.10.2 Reduced Intensity Alternative

The Reduced Intensity Alternative focuses on a development scenario that would reduce the significant operational-source air quality impacts otherwise occurring under the Project.

Of the total operational-source emissions generated by the Project, approximately 90 percent (by weight) would be generated by Project traffic. An effective way to reduce the Project operational-source emissions would therefore be an Alternative that would reduce the total amount of traffic generated by the Project.

Based on the reduction in total traffic, the Reduced Intensity Alternative would also reduce the scope and/or intensity of significant transportation impacts, air quality impacts, and GHG emissions impacts that would result from implementation of the Project.

For purposes of the EIR Alternatives Analysis, the Reduced Intensity Alternative would implement the proposed Merrill Commerce Center Specific Plan uses at an approximately 25 percent reduction in overall development intensity. The mix of land uses proposed by the Project would be proportionally maintained under the Reduced Intensity Alternative. When compared to the approximately 8,455,000 square feet of light industrial/ business park uses proposed by the Project, the Reduced Intensity alternative would realize approximately 6,341,000 square feet of light industrial/business park development. Development under the Project and the Reduced Intensity Alternative is compared at Table 1.10-2.

**Table 1.10-2
Site Development Comparison
Project and Reduced Intensity Alternative**

| Project | Reduced Intensity Alternative |
|--|--|
| Business Park: 55.1 acres; 1,441,000 building sf | Business Park: 55.1 acres; 1,081,000 building sf |
| Industrial: 292.8 acres; 7,014,000 building sf | Industrial: 292.8 acres; 5,260,000 building sf |
| Circulation: 28.4 Acres | Circulation: 28.4 Acres |
| Total: 376.3 Acres; 9,958,500 building sf | Total: 376.3 Acres; 6,341,000 building sf |

Sources: Project Development - Merrill Commerce Center Specific Plan; Reduced Intensity Alternative Development - Applied Planning, Inc.

1.10.3 Alternatives Considered and Rejected

1.10.3.1 Alternative Sites Considered and Rejected

As stated in the *CEQA Guidelines* §15126.6 (f)(1)(2)(A), the “key question and first step in [the] analysis [of alternative locations] is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” *CEQA Guidelines* §15126.6 (f) (1) also provides that when considering the feasibility of potential alternative sites, the factors that may be taken into account include: “site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). None of these factors establishes a fixed limit on the scope of reasonable alternatives.”

As discussed below, relocation of the Project would not avoid or substantially lessen the Project’s significant impacts. Further, there are no feasible alternative sites under control or likely control of the Applicant that would allow for relocation of the Project in manner that could substantially reduce the Project’s significant environmental impacts.

Significant Transportation Impacts Not Substantially Reduced at Alternative Site

- Relocation to an Alternative Site is not likely to achieve any measurable reduction in the Project’s VMT impacts. VMT impacts are influenced by the Project location, but are also a product of the Project land uses. Relocation of the Project within the City could shorten certain worker commutes trip lengths; however, others could be lengthened. There is no demonstrable evidence indicating that worker trip lengths would be substantially altered by relocation of the Project. Further, Project truck trip lengths are determined by SCAQMD trip length modeling protocols, and would not be affected by relocation of the Project site. Further, there are no feasible alternative sites under control or likely control of the Applicant that

would allow for relocation of the Project and associated reassignment of traffic that in manner that could substantially reduce VMT impacts.

Significant Air Quality Impacts Not Substantially Reduced at Alternative Site

- Relocation to an Alternative Site would not likely achieve any measurable reduction in the Project's operational-source air quality impacts and contributions to nonattainment conditions. Relocation of the Project anywhere within the South Coast Air Basin would not alter or diminish the significance of this impact.
- The AQMP land use inconsistency resulting from the Project could not be feasibly avoided by relocation of the Project to an alternative site. That is, there are no alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and that would preclude a changes or changes in land use designations.

Significant Noise Impacts Not Substantially Reduced at Alternative Site

- Significant noise impacts are assumed to occur at land uses adjacent to alignments of off-site infrastructure to be constructed by the Project. These infrastructure alignments are determined by, and are consistent with, City infrastructure master plans. These master plan infrastructure alignments are beyond the control of the Applicant. Relocation of the Project would not substantially alter master plan infrastructure alignments, or substantially diminish construction-source noise impacts that are assumed to occur at adjacent land uses. Moreover, there are no alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and that would substantially reduce construction-source noise impacts affecting land uses adjacent to infrastructure alignments.

Significant GHG Emissions Impacts Not Substantially Reduced at Alternative Site

- GHG emissions impacts are by definition cumulative and global in their effects. Relocation of the Project would not alter or diminish the significance of its GHG emissions impacts.

Significant Impacts to Historical Resources Not Substantially Reduced at Alternative Site

- Consistent with City requirements, the EIR incorporates mitigation that would reduce impacts to the 5 potential contributors to historical resources to the extent feasible. However, buildout of the City as envisioned under The Ontario Plan would ultimately result in urbanization of the area and would not allow for relocation of the Project in manner that would preclude or substantially reduce historical resources impacts otherwise resulting from the Project. In this regard, the Ontario Plan EIR recognizes that implementation of the Proposed General Plan Land Use Plan could threaten historic resources, and recognizes these impacts as significant and unavoidable (General Plan EIR, pp. 5.5-23, 5.5-24). Moreover, there are no alternative sites of under control or likely control of the Applicant that would allow for relocation of the Project and that would substantially reduce potential impacts to historic resources.

Significant Agricultural Resources Impacts Not Substantially Reduced at Alternative Site

- The Project's significant agricultural resources impacts are consistent with the significant agricultural resources impacts anticipated under buildout of the City. In this regard, The Ontario Plan envisions the City buildout condition comprising urban mixed-use, commercial, industrial, and residential land uses. The Ontario Plan vision does not support the continuation of existing agricultural uses. In this latter regard, existing agricultural uses within the City are becoming economically unsustainable and represent land uses that are increasingly incongruous with continuing urbanization of the City. Moreover, there are no alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and that would substantially reduce agricultural resources impacts.

Based on the preceding considerations, analysis of an Alternative Site as means of reducing the Project's significant environmental impacts was not further considered.

1.10.3.2 “No Threshold Exceedance” Alternative for Significant Transportation Impacts Considered and Rejected

VMT impacts are defined in terms of miles traveled per service population (VMT/SP). Reduction in VMT impacts could therefore be potentially reduced by diminishing trip lengths relative to the service population, or increasing the service population relative to trip lengths. Trip lengths for the Project are fixed by its location and land use context. As noted previously in these discussions, relocation of the Project would likely not substantially reduce VMT impacts. The Project Service Population is a function of the land uses proposed. Alteration of the Project land uses would be required in order to significantly increase the Service Population while maintaining or decreasing VMT and thereby improve the VMT/SP ratio and diminish potential VMT impacts. Such land use alterations would result in some undefined development concept other than the Project evaluated in this EIR. Analysis of this other, undefined development would be speculative and would not support the Project Objectives; and is therefore not considered here.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

1.10.3.3 “No Threshold Exceedance” Alternative for Significant Air Quality Impacts Considered and Rejected

In order to reduce Project operational-source air quality emissions to levels that would preclude exceedance of all SCAQMD thresholds, the Project scope would need to be reduced by approximately 90 percent (this would achieve the most restrictive threshold [NO_x] and all subordinate thresholds). At such a reduction in scope, however, the Project Objectives would not be realized in any meaningful sense. As such, potential alternatives with the specific goal of avoiding all significant operational-source air quality impacts resulting from the Project were rejected from consideration, and are not further evaluated in this discussion.

The Project operational-source emissions exceedances noted herein would result in cumulatively considerable contributions to existing Basin pollutant non-attainment conditions. For the same reasons noted above, there are no feasible means or alternatives

to avoid this impact or reduce the impact to levels that would be less-than-significant. However, this impact and all operational-source air quality impacts would be diminished under the EIR Reduced Intensity Alternative.

The Project proposes Policy Plan Land Use amendments that would allow for implementation of the Project uses. Because the Project's proposed Policy Plan Land Uses designations are not reflected in the AQMP, the Project is considered to be inconsistent with AQMP emissions assumptions and projected AQMP emissions inventory. To maintain AQMP consistency, avoidance of the proposed amendments to the site's current Policy Plan Land Use designations would be required. This would effectively negate the Project in total. Additionally, there are no alternative locations under control or likely control of the Applicant that would preclude any potential change in land use designations, thereby avoiding potential inconsistencies with the AQMP.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

1.10.3.4 "No Threshold Exceedance" Alternative for GHG Emissions Impacts Considered and Rejected

The Project cannot feasibly achieve no net increase in GHG emissions, nor can the applicable SCAQMD screening-level threshold (3,000 MTCO₂e/year) be achieved. In this regard, the majority (approximately 70 percent) of the Project GHG emissions would be generated by Project vehicular sources. Responsibility and authority for regulation of vehicular-source emissions resides with the State of California (CARB, et al.). Neither the Applicant nor the Lead Agency can effect or mandate substantive reductions in vehicular-source GHG emissions, much less reductions that would achieve no net increase condition or achieve the SCAQMD screening-level 3,000 MTCO₂e/year threshold. In effect, all Project traffic would need to be eliminated or be "zero GHG emissions sources" in order to achieve the SCAQMD threshold. There is no feasible means to or alternatives to eliminate all Project traffic, or to ensure that Project traffic would zero GHG emissions sources. In terms of its practical application, this would constitute a "no build" condition.

The Project would implement all feasible measures to provide consistency with the current City CAP and pending CAP update. The CAP as updated by the City may implement performance standards and GHG emissions reduction targets differing from the current CAP. There is therefore the potential for Project development proposals to conflict with as-yet-unknown performance standards and GHG emissions reduction targets implemented under the pending CAP updates, and thereby result in GHG emissions that would be considered to represent a significant impact on the environment. Moreover, it cannot be assured that the CAP as updated by the City would be determined to be consistent with applicable State and regional plans adopted for the for the purpose of reducing the emissions of greenhouse gases. There are no feasible alternatives that would ensure consistency with the pending CAP update, or to ensure that the CAP update would be consistent with applicable State and regional plans adopted for the for the purpose of reducing the emissions of greenhouse gases.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

1.10.3.5 “No Threshold Exceedance” Alternative for Significant Noise Impacts Considered and Rejected.

Construction-source noise impacts resulting construction of off-site infrastructure improvements would be significant and unavoidable. Construction-source noise impacts reflect maximum noise levels generated by likely operations of typical construction equipment. The types and quantities of equipment employed, and associated maximum noise levels generated, would not differ substantively under any reasonable scenario for construction of off-site infrastructure.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

1.10.3.6 Preservation Alternatives for Significant Historical Resources Impacts Considered and Rejected

Consistent with City requirements, this EIR incorporates mitigation that would reduce impacts to historical resources to the extent feasible. However, even with application of mitigation, impacts would be significant and unavoidable. In this regard, the Ontario Plan EIR recognizes that implementation of the Proposed Land Use Plan could threaten historic resources and recognizes these impacts as significant and unavoidable (General Plan EIR, pp. 5.5-23, 5.5-24). Preservation Alternatives that could lessen or avoid impacts to historical resources were also considered, but were ultimately determined to be infeasible and were therefore rejected. These Alternatives and the basis for their rejection are summarized below:

- **In Situ Retention:** In situ of these contributors would be incompatible with, and would conflict with the proposed Specific Plan Land Use Plan, Development Standards, and Design Guidelines and would not allow for implementation of the Project. In situ retention of these contributors is therefore not considered feasible.
- **Retention and Adaptive Reuse:** Similarly, retention and adaptive reuse of these contributors would be incompatible with, and would conflict with the proposed Specific Plan Land Use Plan, Development Standards, and Design Guidelines and would not allow for implementation of the Project. Retention of and adaptive use of these contributors is therefore not considered feasible.
- **Relocation:** Relocation of the contributors may be possible, pending identification of a recipient site that is within the New Model Colony [Ontario Plan] boundaries and that maintains similar setting and location, and historic associations. Additionally, each relocated building should retain original materials and design features that give evidence of original workmanship and feeling / aesthetic such that the resource, upon relocation, maintains the ability to convey its identified significance. There are no designated recipient sites that meet the relocation criteria noted. Moreover, buildout of the City as envisioned under The Ontario Plan would ultimately result in urbanization of the area and would not allow for

relocation at a recipient site that maintains similar setting, and location, and historic associations for the affected contributors. Relocation of the contributors is therefore considered infeasible.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

1.10.3.7 “No Threshold Exceedance” Alternative for Significant Agricultural Resources Impacts Considered and Rejected

The Ontario Plan vision does not support the continuation of existing agricultural uses within the City. In this regard, existing agricultural uses within the City are becoming economically unsustainable and represent land uses that are increasingly incongruous with continuing urbanization of the City.

Long-term maintenance of agricultural/farmland uses within the Project site would therefore be contrary to General Plan Land Use Plan and the goals of the Ontario Plan. Persisting agricultural/farmland uses within the Project site would likely result in on-going and increasing land use incompatibilities as surrounding areas continue to urbanize as envisioned under the General Plan. Long-term maintenance of agricultural/farmland uses within the Project would therefore potentially exacerbate rather than reduce environmental impacts. Further, transition of the Project site from agricultural/farmland uses and associated significant impacts to agricultural uses are consistent with and have been previously addressed in certified/adopted City environmental documents. The Project would not result in significant agricultural resources impacts not already considered and addressed in these documents.

Moreover, there are no alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and that would substantially reduce agricultural resources impacts. Replacement of agricultural resources at an off-site location would require the Applicant to purchase off-site replacement acreage not designated as Farmland, and improve or restore it to Farmland status. Creation of additional Farmland in the City is contrary to the General Plan Land Use Plan policies and vision as summarized previously, and would require comprehensive amendment of

the General Plan. Neither the City nor Applicant has indicated that such amendment is warranted or desired, and neither has initiated such action.

Additionally, creation of new Farmland-status properties within the City could result in new and additional adverse impacts to the environment associated with typical farm/dairy operations, including but not limited to:

- Animal waste and creation of methane gas, and soil contamination from nitrates and ammonia.
- Use of petroleum products and above ground storage tanks (ASTs) used for fueling, maintaining and repairing farm equipment.
- Use of formaldehyde, iodine, glycerol, muriatic acid and chlorinated alkaline as cleaning solutions. Application of pesticides to prevent parasite infestations.
- Holding ponds for contaminated runoff from agricultural/dairy farm operations and discharge of wastewater from these processes to pastures or to the area drainage system.
- Accumulating general debris that may have the potential to impact on-site surficial soil.
- Potential presence of septic systems.

These adverse impacts would be amplified at the interface of any agricultural uses imposed within the City's urbanizing context.

Further, creation of new Farmland-status properties outside the City is beyond the Lead Agency and Applicant control. The Farmland status at any site would be assigned through the California Department of Conservation Farmland Mapping and Monitoring Program *Important Farmland Series* mapping protocol. Additionally, creation of new

Farmland-status properties at extra-jurisdictional locations could result in adverse impacts noted above. These impacts would be similar to those the City has experienced, and seeks to avoid through implementation of the Policy Plan Land Use Plan.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

1.10.4 Environmentally Superior Alternative

The *CEQA Guidelines* require that the environmentally superior alternative (other than the No Project Alternative) be identified among the Project and other Alternatives considered in an EIR.

Excluding the No Project Alternatives as stipulated under CEQA⁷, the Reduced Intensity Alternative would likely result in a general reduction in environmental effects when compared to the Project. For the purposes of CEQA, the Reduced Intensity Alternative is identified as the “environmentally superior alternative.”

Reduced Intensity Alternative Would Reduce but Would not Eliminate Significant Impacts

The Reduced Intensity Alternative would reduce, but not eliminate the Project’s significant impacts in regard to transportation, air quality, GHG emissions, noise, agricultural resources noise. More specifically:

- Traffic volumes otherwise generated by the Project may be reduced. However, significant traffic impacts at Study Area facilities would likely persist until such time as the recommended improvements are completed.
- Total VMT would be reduced. However, VMT/SP ratios would be similar to the Project and related VMT impacts would be significant and unavoidable.

⁷ If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (*CEQA Guidelines* Section 15126.6 (e)(2)).

- The magnitude of operational-source air quality impacts (VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions impacts) would be diminished but would remain significant and unavoidable.
- Construction-source noise impacts affecting off-site properties along infrastructure improvements corridors would be similar to the Project and would remain significant and unavoidable.
- Demolition of historic District Contributors would be required. Impacts to historic resources would be similar to the Project and would remain significant and unavoidable.
- GHG emissions impacts would be similar to the Project and would remain significant and unavoidable.
- Agricultural resources impacts would be similar to the Project and would remain significant and unavoidable.

Reduced Intensity Alternative Would Marginalize Attainment of Project Objectives

Based on the reduction in overall development scope, the Reduced Intensity Alternative would broadly restrict attainment of all Project Objectives. Where quantifiable (e.g., additional sales tax revenues, job creation, incremental property tax revenues), this reduction in attainment of Objectives would be approximately 25 percent less than would be otherwise realized under the Project. Qualitatively, development of the subject site under the Reduced Intensity Alternative fails to optimize use of a significant vacant property, and would not be considered by the Lead Agency to represent the highest and best use of the subject site.

Reduced Intensity Alternative Identified as the Environmentally Superior Alternative

In conclusion, the Reduced Intensity Alternative would result in potential incremental reduction in certain significant environmental impacts otherwise occurring under the Project, but would not eliminate these impacts. The Reduced Intensity Alternative would

provide for limited attainment of the Project Objectives. On this basis, the Reduced Intensity Alternative is identified as the environmentally superior alternative.

Other Considerations

Countering its potential environmental benefits, the Reduced Intensity Alternative would broadly and substantially diminish attainment of the Project Objectives, with related diminishment of socio-economic benefits to the City and region. CEQA indicates that socioeconomic effects (while not lone determinants) are important considerations for decision-makers in evaluating and considering EIR Alternatives. With respect to socioeconomics, the Project and the Reduced Intensity Alternative would each have beneficial effects for the area. Either of these scenarios would contribute to area employment and the City's overall tax base. However, as noted previously, because the scope and variety of land uses would be reduced by approximately 25 percent under the Reduced Intensity Alternative, the resulting effective realization of the Project Objectives, to include economic benefits to the City and region, would likely be similarly diminished.

Additionally, at an approximate 25 percent reduction in the Project's development scope, the Reduced Intensity Alternative would not recognize the site's value as one of the remaining undeveloped properties within the City; or take advantage of the site's available acreage and consequently would not result in development of the subject site in a manner considered to be its highest and best use.

1.11 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1.11-1 summarizes potential impacts resulting from implementation and operations of the Project. The impacts identified in Table 1.11-1 correspond with environmental topics and impacts discussed in EIR Section 4.0, *Environmental Impact Analysis*. Table 1.11-1 also lists measures proposed to mitigate potentially significant environmental impacts of the Project and indicates the level of significance after application of proposed mitigation.

**Table 1.11-1
Summary of Impacts and Mitigation**

General Note: To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.

| Impact | Level of Significance Without Mitigation | Mitigation Measures | Level of Significance With Mitigation/Remarks |
|---|--|---|--|
| 4.1 Land Use and Planning | | | |
| Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.2 Transportation | | | |
| Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). | | | |
| VMT Impacts: | Potentially Significant. | <p>4.2.1 The following language or similar shall be incorporated in all Project contract, construction, and property sale/lease documents: "Owners/tenants shall, to the extent practical, allow for and encourage Telecommuting and Alternative Work Schedules."</p> <p>4.2.2 The following language or similar shall be incorporated in all Project contract, construction, and property sale/lease documents: "Owners/tenants shall, to the extent practical, allow for and encourage ride-sharing programs."</p> <p>4.2.3 The Applicant shall record a covenant of a Transportation Demand Management (TDM) program for each Project building/occupancy with 250 or more employees. The form of the covenant shall be approved by the City Attorney's Office. The covenant shall be recorded prior to issuance of Certificate of Occupancy for the subject building(s).</p> | Significant and Unavoidable. Implementation of Mitigation Measures 4.2.1 through 4.2.4 have the potential to reduce Project VMT. The effectiveness of these measures would be dependent in part on final Project designs and occupancies, which are unknown at this time. Beyond Project design and tenancy considerations, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the Project is characteristically suburban. Of itself, the Project's suburban context acts to reduce the range |

**Table 1.11-1
Summary of Impacts and Mitigation**

General Note: To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.

| Impact | Level of Significance Without Mitigation | Mitigation Measures | Level of Significance With Mitigation/Remarks |
|--------|--|--|--|
| | | <p>4.2.4 Prior to issuance of a Certificate of Occupancy for each building/occupancy providing for 250 or more employees, each owner/tenant shall develop a use/occupant-specific TDM program. The TDM program shall submitted to the City Planning Department and City Building Department as part of tenant improvements plan(s) documentation. At a minimum, the TDM program shall:</p> <ul style="list-style-type: none"> • Identify physical improvements (if any) to be implemented as part of the TDM program. The City Planning/Building Department shall verify completion of physical TDM improvements as part of the Certificate of Occupancy process. • Identify TDM program operational strategies to be implemented. These TDM strategies may include but would not be limited to the following: <ul style="list-style-type: none"> ○ On-site services such as food, retail, and other services to be provided. ○ Ridesharing. Develop a commuter listing of all employee members for the purpose of providing a “matching” of employees with other employees who live in the same geographic areas and who could rideshare. ○ Vanpooling. Develop a commuter listing of all employees for the purpose of matching numbers of employees who live in geographic | <p>of feasible TDM measures and moderates their potential effectiveness.</p> |

**Table 1.11-1
Summary of Impacts and Mitigation**

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|--------|--|---|---|
| | | <p><i>proximity to one another and could comprise a vanpool or participate in the existing vanpool programs.</i></p> <ul style="list-style-type: none"> ○ <i>Guaranteed Ride Home Program. Develop and implement a program to provide employees who rideshare, or use transit or other means of commuting to work, with a prearranged ride home in a taxi, rental car, shuttle, or other vehicle, in the event of emergencies during the work shift.</i> ○ <i>Target Reduction of Longest Commute Trip. Provide incentives for ridesharing and other alternative transportation modes to put highest priority on reduction of longest employee commute trips.</i> ○ <i>Implement staggered work shifts to the extent practical.</i> ○ <i>Implement telecommute programs to the extent practical.</i> ● <i>Establish a TDM coordinator position. The position of TDM coordinator may be fulfilled by the building owner/lessee, an employee, or third</i> | |

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|--------|--|--|---|
| | | <p><i>party provider. The TDM coordinator shall:</i></p> <ul style="list-style-type: none"> ○ <i>Identify proposed TDM measures to be implemented and provide a list of implemented measures to the City Planning Department;</i> ○ <i>Inform employees of commute options and shall, as applicable, arrange rideshare or vanpool programs;</i> ○ <i>Develop and implement a TDM monitoring program. The TDM monitoring program shall identify trip generation, trip origin(s), average vehicle ridership, and provide an estimate of VMT/employee. The results of the survey shall be submitted annually to the City Planning Department;</i> ○ <i>Based on the results of the TDM monitoring program, provide TDM modification recommendations to the City and affected owners/tenants. Additional/alternative VMT reduction measures that would act to reduce Project VMT levels and that are mutually agreed to by the City and owners/tenants shall be implemented.</i> | |

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|---|--|---|--|
| Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Substantially increase hazards to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Result in inadequate emergency access. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.3 Air Quality | | | |
| Conflict with or obstruct implementation of the applicable air quality plan. | Potentially Significant. | The Project would implement development-specific air quality mitigation measures acting to generally reduce the Project’s construction-source and operational-source air pollutant emissions. Additionally, incorporation of contemporary energy-efficient technologies and operational programs, and compliance with SCAQMD emissions reductions and control requirements act to reduce Project air pollutant emissions generally. | Significant and Unavoidable. Notwithstanding, because a change in land use is proposed under the Project, it is assumed that the emissions generated by the Project’s proposed land uses are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is conservatively assumed to |

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|--|---|--|--|
| Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. | Potentially Significant (VOC and NO _x construction-source emissions) | <p>4.3.1 The Project shall utilize “Super-Compliant” low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD’s Rule 1113. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Alternatively, the applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings.</p> <p>4.3.2 Construction contractors shall ensure that large off-road diesel fueled construction equipment, including but not limited to excavators, graders, rubber-tired dozers, and similar large pieces of equipment be equipped with CARB Tier 4 Compliant engines. If the operator lacks Tier 4 equipment, and Tier 4 equipment is not available for lease or short-term rental within 50 miles of the project site, Tier 3 Compliant or cleaner off-road construction equipment may be utilized.</p> | <p>conflict with the 2016 AQMP.</p> <p>Less-Than-Significant.</p> |
| | Potentially Significant (VOC, NO _x , CO, PM ₁₀ , and PM _{2.5} operational-source emissions) | 4.3.3 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than five (5) minutes once the | Significant and Unavoidable. Mitigation Measures 4.3.3 through 4.3.8 would act to globally reduce Project operational-source emissions. However, there is no way to quantify these reductions in the California Emissions Estimator |

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Summary of Impacts and Mitigation**

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| | | <p><i>vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the City shall conduct a site inspection to ensure that the signs are in place.</i></p> <p><i>4.3.4 Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the City demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.</i></p> <p><i>4.3.5 The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations (CCR) Title 24 shall be provided. As agreed to by the Applicant and Lead Agency, final designs of Project buildings shall include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations.</i></p> <p><i>4.3.6 As agreed to by the Applicant and Lead Agency, final Project designs shall provide for installation of</i></p> | <p>Model (CalEEMod). This analysis therefore conservatively assumes that mitigated and unmitigated Project operational-source emissions are substantively equal.</p> |

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Summary of Impacts and Mitigation**

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|--|--|---|--|
| | | <p><i>conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations.</i></p> <p><i>4.3.7 Where transport refrigeration units (TRUs) are in use, electrical hookups shall be installed in order to allow TRUs to use electric standby capabilities.</i></p> <p><i>4.3.8 All diesel trucks accessing the Project shall be compliant with the CARB Truck and Bus Regulation 2010 engine emissions standards.</i></p> | |
| Expose sensitive receptors to substantial pollutant concentrations. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.4 Greenhouse Gas Emissions | | | |
| Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. | Potentially Significant. | <p><i>4.4.1 Project development proposals with building permit applications on file with the City prior to approval and adoption of updates to the December 16, 2014 CAP shall implement Screening Table Measures that achieve at least 100 points per the Screening Tables. The City shall verify that Screening Table Measures achieving the 100-point performance standard are incorporated in development plans prior to the issuance of building permit(s) and/or site plans (as applicable). The City shall verify implementation of the selected Screening Table Measures prior to the issuance of Certificate(s) of Occupancy. At the</i></p> | <p>Significant and Unavoidable. Pending adoption of the City CAP update; a determination that the City CAP as updated is consistent with applicable State and regional GHG emissions reduction plans; and a determination that Project development proposals are consistent with the CAP as updated, the potential for Project GHG emissions to result in a significant impact on the</p> |

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Summary of Impacts and Mitigation**

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|---|--|--|--|
| | | <p><i>discretion of the City, measures that provide GHG reductions equivalent to GHG emissions reductions achieved via the Screening Table Measures may be implemented. Multiple development proposals may, at the discretion of the City, be allowed to collectively demonstrate achievement of at least 100 points per the Screening Tables.</i></p> <p><i>4.4.2 Project development proposals with building permit applications on file with the City subsequent to approval and adoption of updates to the December 16, 2014 CAP shall comply with performance standards and GHG emissions reduction targets of the incumbent CAP. The City shall verify incorporation of measures that would achieve performance standards and GHG emissions reduction targets of the incumbent CAP prior to the issuance of building permit(s) and/or site plans (as applicable). The City shall verify implementation of applicable CAP provisions prior to the issuance of Certificate(s) of Occupancy. Multiple development proposals may, at the discretion of the City, be allowed to collectively demonstrate consistency with applicable provisions of the incumbent CAP.</i></p> | <p>environment is considered to be a significant and unavoidable impact.</p> |
| <p>Conflict with an applicable plan, policy or regulation adopted for the</p> | <p>Potentially Significant.</p> | <p>Please refer to Mitigation Measures 4.4.1, 4.4.2.</p> | <p>Significant and Unavoidable. Pending adoption of the City</p> |

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Summary of Impacts and Mitigation**

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|--|---|---|--|
| purpose of reducing the emissions of greenhouse gases. | | | CAP update; a determination that the City CAP as updated is consistent with applicable State and regional GHG emissions reduction plans; and a determination that Project development proposals are consistent with the CAP as updated, the potential for Project GHG emissions to result in a significant impact on the environment is considered to be a significant and unavoidable impact. |
| 4.5 Noise | | | |
| Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. | Potentially Significant. (On-site Construction) | <p>4.5.1 Provide a minimum 150-foot buffer distance between large construction equipment (e.g. dozers, graders, scrapers, etc.) and receiver locations R3, R4, R7 and R8, if residences at these locations are occupied and actively used at the time Project demolition and/or grading activities occur.</p> <p>4.5.2 If a 150-foot buffer is not achievable, install temporary noise control barriers that provide a minimum noise level attenuation of 10.0 dBA when Project demolition or grading activities occur within 150 feet of existing residential structures, or other</p> | Less-Than-Significant. |

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| | | <p><i>off-site sensitive land uses that are occupied and actively utilized. General noise control barrier design parameters are presented below, though any solution(s) providing the required 5.0 dBA noise attenuation is/are acceptable.</i></p> <ul style="list-style-type: none"> <i>o The noise control barrier should present a generally solid face from top to bottom. Unnecessary openings should not be made.</i> <i>o The noise control barrier shall be maintained and any damage in the barrier or openings between the barrier and the ground shall be promptly repaired.</i> <i>o The noise control barrier(s) and associated elements shall be removed and affected portion(s) of the site restored at the conclusion of grading/demolition activities.</i> <p><i>4.5.3 Alternatively, the Applicant may employ construction equipment and construction techniques that would demonstrably ensure that noise levels at potentially affected sensitive receptors would not exceed 65 dBA. A combination of noise-receptor separation, noise barriers and use of noise reducing construction equipment and construction techniques may be employed provided that noise levels at potentially affected receptors does not exceed 65 dBA.</i></p> | |

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| | Potentially Significant. (Offsite Infrastructure Construction) | <p>4.5.4 Off-site infrastructure improvement plans and construction documents shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 6:00 p.m. any weekday, or on Saturday or Sunday from 9:00 a.m. to 6:00 p.m. (City of Ontario Municipal Code, Section 5-29.09).</p> <p>4.5.5 Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. Construction contractors shall place all stationary construction equipment so that emitted noise is directed away from the nearest noise sensitive receivers.</p> <p>4.5.6 Construction contractors shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers.</p> <p>4.5.7 Construction contractors shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 6:00 p.m. any weekday, or on Saturday or Sunday from 9:00 a.m. to 6:00 p.m.). Contractors</p> | Significant and Unavoidable. Implementation of these measures would reduce off-site construction-source noise levels at potentially affected receptors. However, the degree of reduction cannot be assured, and is subject to varied source-receptor distances, numbers and types of equipment used, variable terrain and weather conditions and other factors beyond control of the Applicant. For the purposes of this analysis, even with the application of mitigation, noise generated by construction of off-site infrastructure is assumed to exceed the applicable 65 dBA Leq noise standard, and would be significant and unavoidable. |

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Summary of Impacts and Mitigation**

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| | | <i>shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.</i> | |
| | Potentially Significant. (Operational-Source) | <p>4.5.8 <i>Cold storage loading dock activities and distribution/warehouse facilities shall be designed so that truck bays and loading docks are a minimum of 300 feet away from the property line of sensitive receivers, measured from the dock building door. This distance may be reduced if the site design includes berms or other similar features to appropriately shield and buffer the sensitive receivers from the active truck operations areas.</i></p> <p>4.5.9 <i>Cold storage loading dock activities and distribution/warehouse facilities shall be designed to provide adequate on-site parking for commercial trucks and passenger vehicles and on-site queuing for trucks that is away from sensitive receivers. The general queuing and spill-over of trucks onto surrounding public streets shall be prevented. Commercial trucks shall not be parked in the public road right-of-way or nearby residential areas.</i></p> <p>4.5.10 <i>All Project PA systems shall be oriented to direct sound away from sensitive receivers. PA volumes shall be set such that received noise levels are not readily audible past the property line.</i></p> | Less-Than-Significant. |

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| | | 4.5.11 Individual development proposals within the Project site shall demonstrate to the satisfaction of the Lead Agency that noise impacts generated by such proposals would not exceed or be substantially different than noise impacts considered and addressed in the Project Noise Impact Analysis. | |
| Generation of excessive groundborne vibration or groundborne noise. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.6 Hazards/Hazardous Materials | | | |
| Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. | Potentially Significant (Existing On-site Hazards and Construction Hazards). | 4.6.1 Soil Management Plan(s) Required. Prior to commencement of site disturbance activities, the Applicant shall retain a qualified professional to prepare a Soil Management Plan. The Soil Management Plan shall address the Specific Plan Area proper as well as areas potentially affected by construction of off-site infrastructure. The Soil Management Plan shall include a Health and Safety Plan (HASP), soil excavation monitoring protocols, and measures to monitor and control | Less-Than-Significant. |

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| | | <p>vapors and dust. The Applicant shall submit the Soil Management Plan to the California Department of Toxic Substances (DTSC) for review and approval. The City shall not authorize any activity at the Project site that has the potential to disturb soil until DTSC has approved the Soil Management Plan and all necessary permits have been obtained. Should contaminated soils be encountered as part of Project development, the protocols identified within the Soil Management Plan(s) shall be followed in regard to monitoring, handling, disposal, and reporting of management activities to the California Department of Toxic Substance Control, Regional Water Quality Control Board, and/or South Coast Air Quality Management District (including copies of all daily field logs containing SCAQMD Rule 1166 monitoring results), as required. Copies of all submitted reports and responses from responsible agencies shall be provided to the City of Ontario.</p> <p>4.6.2 On-Site Environmental Manager Required. The Applicant shall retain a qualified Environmental Manager who shall be on-site during all site disturbance activities. The Environmental Manager shall ensure implementation of the Soil Management Plan required under Mitigation</p> | |

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| | | <p>Measure 4.6.1. The Environmental Manager shall also be responsible for monitoring of site disturbance activities to include identification of potentially contaminated media. The Environmental Manager shall have the responsibility and authority to halt on-site activities should any contaminated media or potentially contaminated media be encountered during site disturbing activities. Any contaminated media or potentially contaminated media identified by the Environmental Manager shall be excavated, handled, inventoried, stockpiled, and disposed of in accordance with the approved Soil Management Plan and consistent with all applicable provisions of local, state, and federal laws and regulations.</p> <p>4.6.3 Consistent with the City of Ontario requirements, prior to the issuance of building permits, all lots in potential methane areas shall be tested for the presence of methane and its concentration 30 days after building pads are graded and created. Measures set forth by the Ontario Methane Design Guidelines shall be implemented to the satisfaction of the City Building Department.</p> | |

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| | | 4.6.4 Prior to the issuance of grading permits, a subsurface investigation shall be completed to assess the presence or absence of soil contaminants due to the sites past agricultural use, and current dairy farming uses. | |
| | | <p>4.6.5 Prior to the issuance of grading permits, the Project Applicant shall demonstrate to the satisfaction of the City that Soil Management Plan(s) have been developed for the site and areas potentially affected by construction of off-site infrastructure. Grading plans shall include a copy of the Soil Management Plan(s).</p> <p>4.6.6 Prior to the issuance of grading permits, any existing debris shall be removed. All debris, including soils that evidence surficial staining, shall be disposed of off-site, consistent with the protocols of the Soil Management Plan(s).</p> <p>4.6.7 Prior to any relocation, demolition, or destructive renovation activities involving the on-site structures, the Applicant shall submit documentation to the City that ACMs and LBP issues are not applicable to Project. Negative ACM/LBP findings shall be documented in Site/Structure Survey Report (Report) prepared by the Environmental Manager or qualified assignee.</p> | |

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| | | <p><i>The Report shall be submitted to and approved by the City prior to the issuance of applicable relocation, demolition, renovation and/or site disturbing permit(s). If results of the Report indicate presence of ACMs and/or LBP, an action plan shall be implemented in accordance with all appropriate regulatory agency guidelines to abate any issues. Please refer to Mitigation Measure 4.6.8.</i></p> <p><i>4.6.8 Any confirmed and suspected ACMs or LBP shall be handled and disposed of by licensed contractors in accordance with all appropriate regulatory agency guidelines. Abatement, containment and disposal of any ACMs encountered shall comply with SCAQMD Rule 1403. The removal and disposal of lead-based paint material shall be implemented in accordance with California Code of Regulations, Title 8 Section 1532.1, the Code of Federal Regulations (Title 40, Part 745, and Title 29, Part 1926), the EPA's Lead Renovation, Repair and Painting Program Rules and Residential Lead-Based Paint Disclosure Program, and sections 402/404 and 403, and Title IV of the Toxic Substances Control Act (TSCA).</i></p> | |

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| | | <p>4.6.9 <i>For the duration of off-site Project ground-disturbing activities:</i></p> <ul style="list-style-type: none"> • <i>Stained or odorous soil encountered during ground-disturbing activities shall be removed, stockpiled, and transported for disposal in accordance with local, state, and federal regulations. Soil samples shall be collected from the resulting excavation(s) to verify complete removal of any impacted soil.</i> • <i>During soils/debris removal operations, a Project Environmental Professional (Environmental Professional) shall be retained and shall be available to identify and address other issues that may arise in the course Project development. As determined necessary by the Environmental Professional, additional measures shall be employed to minimize effects of any encountered hazards. Documentation of the measures employed and resulting conditions after their application shall be documented and submitted to the Lead Agency.</i> • <i>Contractors and the Environmental Professional shall maintain ongoing observation and assessment of areas of possible contamination. Such areas would include but not be limited to: the presence of unexpected</i> | |

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| | | <i>underground facilities, buried debris, stained soil or odorous soils. Should such materials be encountered, the Environmental Professional in consultation with the Lead Agency shall determine the scope of investigation, analysis, and remediation warranted.</i> | |
| Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. | No Impact. | No mitigation is necessary. | Not applicable. |
| Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for the people residing or working in the project area. | Potentially Significant. | <i>4.6.10 Prior to Final Project Plan approvals (including but not limited to: Site Plans, Building Plans, Landscape Plans, Utility Plans, and Roadway Plans), the Project Applicant shall document compliance with applicable provisions of the City of Ontario Chino Airport Compatibility Plan and correlating provisions of the Merrill Commerce Center Specific Plan. Overflight Deed Notices shall be provided for any properties identified in the Compatibility Plan as subject routine aircraft overflight(s).</i> | Less-Than-Significant. |

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|--|--|-----------------------------|---|
| Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.7 Hydrology and Water Quality | | | |
| Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |

**Table 1.11-1
Summary of Impacts and Mitigation**

General Note: To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.

| Impact | Level of Significance Without Mitigation | Mitigation Measures | Level of Significance With Mitigation/Remarks |
|---|--|---|---|
| Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.8 Biological Resources | | | |
| Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. | Potentially Significant. | <p><i>4.8.1 A qualified biologist shall conduct a pre-construction presence/absence survey for burrowing owls within 14 days prior to site disturbance. If the species is absent, no additional mitigation is required. If burrowing owl(s) is (are) detected within the Project's disturbance footprint located within the City of Chino Preserve Resource Management Plan (RMP) boundary, the owl(s) are required to be handled as indicated by the RMP:</i></p> <p><i>Prior to disturbance of occupied burrows (if any), suitable and unoccupied replacement burrows shall be provided at a ratio of 2:1 within the City of Chino designated relocation area (e.g., the NTS basins). A qualified biologist through coordination with the City shall confirm that the artificial burrows are currently unoccupied and suitable for use by owls.</i></p> <p><i>Until suitable replacement burrows have been provided/confirmed within the designated relocation area (e.g., the NTS basins), no disturbance shall occur within 50 meters (approximately 160 feet) of</i></p> | Less-Than-Significant. |

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Summary of Impacts and Mitigation**

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|---------------|---|---|--|
| | | <p><i>occupied burrows during the nonbreeding season (September 1 through January 31) or within 75 meters (approximately 250 feet) during the breeding season (February 1 through August 31).</i></p> <p><i>Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.</i></p> <p><i>If burrowing owls are present at the time that the occupied burrows are to be disturbed, then the owls shall be excluded from the site following the 2012 CDFG Staff Report and Table 4-6 of the RMP.</i></p> <p><i>Pursuant to mitigation measure B-3(8) of The Preserve EIR, and as noted on Page 4-39 of the RMP, the Project shall pay the required mitigation fee prior to initiation of ground disturbing activities.</i></p> | |

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Summary of Impacts and Mitigation**

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|--------|--|--|---|
| | | <p>4.8.2 If burrowing owl(s) is (are) detected within the Project's proposed disturbance footprint outside of the RMP boundary:</p> <p>Prior to disturbance of the occupied burrows, suitable and unoccupied replacement burrows shall be provided at a ratio of 2:1 within designated off-site conserved lands to be identified through coordination with CDFW and the City in which the burrowing owl(s) is(are) detected (either the City of Ontario or the City of Chino). A qualified biologist shall confirm that the artificial burrows are currently unoccupied and suitable for use by owls.</p> <p>Until suitable replacement burrows have been provided/confirmed within the off-site conserved lands to be identified through coordination with CDFW and the City of Ontario or the City of Chino, no disturbance shall occur within 50 meters (approximately 160 feet) of occupied burrows during the nonbreeding season (September 1 through January 31) or within 75 meters (approximately 250 feet) during the breeding season (February 1 through August 31).</p> <p>Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31)</p> | |

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Summary of Impacts and Mitigation**

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|--------|--|---|---|
| | | <p><i>unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.</i></p> <p><i>If burrowing owls are present at the time that the occupied burrows are to be disturbed, then the owls shall be relocated from the site following the 2012 [CDFW] Staff Report.</i></p> | |
| | | <p>4.8.3 <i>Vegetation clearing should be conducted outside of the nesting season (February 1 through August 31) to avoid impacts to nesting birds, including raptors. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests (generally a minimum of 200 feet up to 500 feet for raptors and a minimum of 50 feet up to 300 feet for passerine species, with specific buffer widths to be determined by a qualified biologist), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.</i></p> | |

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| | | <p>4.8.4 For large ornamental trees suitable for bat roosting/nursery, exit counts and acoustic surveys shall be performed prior to initial ground disturbance and vegetation removal to determine whether the Project footprint and a 300-foot buffer supports a nursery or roost, and by which species. This survey work shall occur between late-spring and late summer and/or in the fall (generally mid-March through late October).</p> <p>If the results of the bat survey finds a single roosting individual of a special-status bat species or a total of a 25 or more individuals of non-special-status bat species with potential to be present in the Study area (i.e., western Mastiff bat, big free-tailed bat, pallid bat, western red bat, and western yellow bat), a Bat Management Plan (Plan) shall be developed to ensure mortality to bats does not occur. For each location confirmed to be occupied by bats, the Plan shall provide details both in text and graphically where exclusion devices and/or staged tree removal will need to occur, the timing for exclusion work, and the timeline and methodology needed to exclude the bats. Preliminary Plan components and performance standards are outlined below:</p> | |

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|--------|--|--|---|
| | | <p>To avoid the direct loss of bats that could result from removal of trees that may provide maternity roost habitat (e.g., in cavities or under loose bark), the following steps should be taken:</p> <p>1) If trees and/or structures must be removed or disturbed as part of Project activities, a qualified bat specialist should conduct surveys to identify use of habitat by any bat species. Focused surveys using electronic detection should be used to identify general bat use and any special status bat species using any habitat proposed for removal or disturbance;</p> <p>2) Maternity season lasts from March 1 to September 30. Trees and/or structures should not be removed until the end of the maternity season;</p> <p>3) If bats are not detected, but the bat specialist determines that roosting bats may be present at any time of year, it is preferable to push any tree down using heavy machinery rather than felling it with a chainsaw. In order to ensure the optimum warning for any roosting bats that may still be present, the tree should be pushed lightly two to three times, with a pause of approximately 30 seconds between each nudge to allow bats to become active. The tree should</p> | |

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|--------|--|--|---|
| | | <p><i>then be pushed to the ground slowly and should remain in place overnight and until it is inspected by a bat specialist. Trees that are suspected to be bat roosts should not be sawed up or mulched immediately. A period of at least 24 hours, and preferably 48 hours, should elapse prior to such operations to allow bats to escape. Bats should be allowed to escape prior to demolition of buildings. This may be accomplished by placing one way exclusionary devices into areas where bats are entering a building that allow bats to exit but not enter the building;</i></p> <p><i>4) The bat specialist should document all demolition monitoring activities, and prepare a summary report to the Lead Agency upon completion of tree disturbance and/or building demolition activities. CDFW requests copies of any reports prepared related to bat surveys (e.g., monitoring, demolition);</i></p> <p><i>5) If confirmed occupied or formerly occupied bat roosting and foraging habitat is destroyed, habitat of comparable size and quality should be preserved and maintained at a nearby suitable undisturbed area. The bat habitat mitigation shall be determined by the bat specialist in consultation with CDFW;</i></p> | |

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|---------------|---|--|--|
| | | <p>6) <i>A monitoring plan should be prepared and submitted to the Lead Agency. The monitoring plan should describe proposed mitigation habitat, and include performance standards for the use of replacement roosts by the displaced species, as well as provisions to prevent harassment, predation, and disease of relocated bats; and,</i></p> <p>7) <i>Annual reports detailing the success of roost replacement and bat relocation should be prepared and submitted to Lead Agency and CDFW for five years following relocation or until performance standards are met, whichever period is longer.</i></p> <p><i>The Plan shall be reviewed and approved by CDFW prior to disturbance of any roost(s).</i></p> <p>4.8.5 <i>Prior to the issuance of any grading permits and prior to any physical disturbance of any possible jurisdictional areas, the Project Applicant shall purchase credits from an approved mitigation bank/in-lieu fee program at a minimum of a 1:1 ratio, for a minimum of 4.15 acres (inclusive of the 2.14 acres of non-wetland Waters of the US) of mitigation credits, or a number of mitigation credits equal to Project impacts based on final Project design during aquatic permitting.</i></p> | |

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|---------------|---|---|--|
| | | <p><i>If an approved mitigation bank/in-lieu fee program cannot be identified to mitigate the loss of Corps, Regional Board, and CDFW jurisdiction, the Project Applicant shall enhance, re-establish, or establish Corps, Regional Board, and CDFW jurisdictional areas on off-site conserved lands at a minimum of a 1:1 ratio, for a minimum of 4.15 acres (inclusive of the 2.14 acres of non-wetland Waters of the US) of enhancement, re-establishment, or establishment, or a number acres equal to Project impacts based on final Project design during aquatic permitting. Conservation and compensation shall conform to Conservation and Mitigation Banking Guidelines (CDFW) July 2019, to include applicable interagency (e.g., Corps, Regional Board, and USFWS) measures. See also: https://wildlife.ca.gov/Conservation/Planning/Banking/Guidelines.</i></p> <p><i>Compensatory mitigation shall be coordinated with CWA 401 and 404 permitting and CDFW 1602 Streambed Alteration Agreement acquisition to ensure efficiency and efficacy of the mitigation effort.</i></p> | |

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|---|---|-----------------------------|--|
| Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |

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|---|--|--|---|
| Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.9 Geology and Soils | | | |
| Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking; seismic-related ground failure, including liquefaction; or be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. | Potentially Significant. | 4.9.1 <i>Design and development of the Project shall comply with Recommendations and Grading Specifications identified within Project Geotechnical Studies, to include preparation of and conformance with design-level geotechnical studies for individual development proposals within the Project site. Where the Project Geotechnical Studies and design-level geotechnical studies are silent, requirements of the California Building Code as adopted and implemented by the City shall prevail.</i> | Less-Than-Significant. |
| Location on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), thereby creating substantial direct or indirect risks to life or property. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Result in substantial soil erosion or the loss of topsoil. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |

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| 4.10 Cultural/Tribal Resources | | | |
| Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5. | Potentially Significant. (Impacts to residences and/or dairy properties at: 8731 Eucalyptus Avenue; 8831 Eucalyptus Avenue; 8888 Eucalyptus Avenue; 14651 S. Grove Avenue; and 8643 Eucalyptus Avenue). | 4.10.1 Mitigation shall be provided consistent with City requirements, to include: <ul style="list-style-type: none"> • Payment of mitigation fees; • Provisions of as-built drawings and Historic American Buildings Survey (HABS) photo documentation; and • Development of Historic Context Reports for significant persons in the dairy farm industry, such as the Borba family. (See also EIR Section 4.10 for further mitigation details). | Significant and Unavoidable. Application of mitigation, per City requirements, would diminish impacts to the noted potential Historic District Contributors (8731 Eucalyptus Avenue; 8831 Eucalyptus Avenue; 8888 Eucalyptus Avenue; 14651 S. Grove Avenue; and 8643 Eucalyptus Avenue). However, because these potential Contributors would be demolished as part of the Project, this impact could not be reduced to levels that would be less-than-significant. On this basis, impacts to residences and/or dairy properties at: 8731 Eucalyptus Avenue; 8831 Eucalyptus Avenue; 8888 Eucalyptus Avenue; 14651 S. Grove Avenue; and 8643 Eucalyptus Avenue would be significant and unavoidable. |
| Cause a substantial adverse change in the significance of an archaeological | Potentially Significant. | 4.10.2 Archaeological, Historical, and Tribal Cultural Resources: Prior to the issuance of the first grading | Less-Than-Significant. |

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|--------------------------------|---|--|--|
| resource pursuant to §15064.5. | | <p><i>permit, the applicant shall provide a letter to the City of Ontario Building Department, or designee, from a qualified professional archeologist meeting the Secretary of Interior’s Professional Qualifications for Archaeology as defined at 36 CFR Part 61, Appendix A stating that the archeologist has been retained to provide on-call services in the event archeological resources are discovered. The archeologist shall be present at the pre-grading conference to establish procedures for archeological resource surveillance. In the event a previously unrecorded archaeological deposit is encountered during construction, all activity within 50 feet of the area of discovery shall cease and the City shall be immediately notified. The archeologist shall be contacted to flag the area in the field and determine if the archaeological deposits meet the CEQA definition of historical (State CEQA Guidelines 15064.5(a)), unique archaeological resource (Public Resources Code 21083.2(g)), or Tribal Cultural Resource (Public Resources Code 21074 (a)). If the find is considered a “resource” the archaeologist shall pursue either protection in place or recovery, salvage and treatment of the deposits. A qualified archaeologist and a Native American Monitor of Gabrieleño Ancestry shall evaluate all archaeological resources unearthed by Project construction</i></p> | |

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| | | <p><i>activities. If the resources are Native American in origin, they shall have the opportunity to consult with the City and/or Project developer on appropriate treatment and curation of these resources. If unique archaeological resources, or Tribal Cultural Resources cannot be preserved in place or left in an undisturbed state, recovery, salvage and treatment shall be required at the applicant's expense. Recovery, salvage and treatment protocols shall be developed in accordance with applicable provisions of Public Resource Code Section 21083.2 and State CEQA Guidelines 15064.5 and 15126.4. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation by the archaeologist. Resources shall be identified and curated into an established accredited professional repository. The archaeologist shall have a repository agreement in hand prior to initiating recovery of the resource. Excavation as a treatment option will be restricted to those parts of the unique archaeological resource, or Tribal Cultural Resource that would be damaged or destroyed by the Project.</i></p> | |
| | | <p><i>4.10.3 Native American Monitoring. Prior to commencement of any excavation activities, the Project developer shall retain a Native American Monitor of Gabrieleño Ancestry to:</i></p> | |

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| | | <ul style="list-style-type: none"> • <i>Conduct a Native American Indian Sensitivity Training for construction personnel. The training session shall include a handout and focus on how to identify Tribal Cultural Resources/Native American resources encountered during earthmoving activities and the procedures followed if resources are discovered, the duties of the Native American Monitor of Gabrieleño Ancestry, and the general steps the Monitor would follow in conducting a salvage investigation.</i> • <i>Monitor all project-related, ground-disturbing construction activities (e.g., pavement removal, auguring, boring, grading, excavation, potholing, trenching, and grubbing) of previously undisturbed native soils to a maximum depth of 30 feet below ground surface. At their discretion and expense, a Native American Monitor of Gabrieleño Ancestry can be present during the removal of dairy manure to native soil.</i> | |
| | | <p><i>4.10.4 Native American Human Remains Prior to the start of ground disturbing activities, the project developer shall designate a location within the footprint of the Project site for the respectful reburial of Native American human remains and/or ceremonial objects. All human skeletal material discoveries shall be reported immediately to the</i></p> | |

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| | | <p><i>County Coroner. The Native American Monitor shall immediately divert work a minimum of 50 feet from the discovery site and place an exclusion zone around the burial. The Native American Monitor shall notify the construction manager who shall contact the San Bernardino County Coroner. Pursuant to California Health and Safety Code, Section 7050.5, all construction activity shall be diverted while the San Bernardino County Coroner determines if the remains are Native American. If the San Bernardino County Coroner determines the remains represent a historic non-Native American burial, the burial shall be treated in the same manner of respect with agreement of the San Bernardino County Coroner. Reburial will be in an appropriate setting. If the San Bernardino County Coroner determines the remains to be modern, the San Bernardino County Coroner shall take custody of the remains.</i></p> <p><i>If Native American, the San Bernardino County Coroner shall notify the Native American Heritage Commission (NAHC) as mandated by state law who will then appoint a Most Likely Descendent. The discovery shall be confidential and secure to prevent further disturbance. In the case where discovered human remains cannot be documented and</i></p> | |

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| | | <p>recovered on the same day, the remains shall be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard shall be posted outside working hours. The Native American Tribe of Gabrieleño Ancestry shall make every effort to recommend diverting the Project and keep the remains in situ and protected. If the Project cannot be diverted, it may be determined that burials will be removed. If data recovery is approved by the Tribe, documentation shall be taken, which includes at a minimum, detailed descriptive notes and sketches. Additional types of documentation shall be approved by the Tribe for data recovery purposes. No scientific study or the utilization of any invasive diagnostics shall be allowed to any Native American human remains. Cremations will either be removed in bulk or means necessary to ensure complete recovery of all material. If the discovery of human remains includes four (4) or more burials, the location is considered a cemetery and a separate treatment plan shall be created. The Project developer shall consult with the Tribe regarding avoidance of all cemetery sites. Each occurrence of human remains and associated funerary objects shall be stored using opaque cloth bags. All human</p> | |

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| | | <p><i>remains, funerary objects, sacred objects and objects of cultural patrimony shall be removed to a secure container onsite if possible. These items shall be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the Project site, but at a location agreed upon between the Tribe and the developer and protected in perpetuity. There shall be no publicity regarding any cultural materials recovered. Once complete, a final report of all activities shall be submitted to the NAHC.</i></p> | |
| <p>Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>(iii) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section</p> | <p>Potentially Significant.</p> | <p>Please refer to Mitigation Measures 4.10.2, 4.10.3, and 4.10.4.</p> | <p>Less-Than-Significant.</p> |

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| 5020.1(k), or (iv) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | | | |
| Directly or indirectly destroy a unique paleontological resource or site or unique geological feature. | Potentially Significant. | 4.10.5 <i>Paleontological monitoring shall be conducted during all grading and trenching operations. Monitoring shall be conducted intermittently during initial cuts until the Quaternary deposits are encountered. Once Quaternary deposits are identified, paleontological monitoring shall be conducted on a full-time basis.</i> 4.10.6 <i>Paleontological monitors shall be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediment that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall be empowered to temporarily halt or</i> | Less-Than-Significant. |

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| | | <p><i>divert equipment to allow for the removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if they are present, are determined upon exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources.</i></p> <p>4.10.7 <i>Recovered specimens shall be prepared of to a point of identification and permanent preservation, including screen-washing sediments to recover small invertebrates and vertebrates if indicated by the results of test sampling.</i></p> <p>4.10.8 <i>All recovered fossils shall be deposited in an accredited institution (university or museum) that maintains collections of paleontological materials. All costs of the paleontological monitoring and mitigation program, including any one-time charges by the receiving institution, shall be the responsibility of the developer(s).</i></p> <p>4.10.9 <i>At the conclusion of monitoring activities at a given location, the paleontological monitor shall prepare a Final Mitigation and Monitoring Report (Final Report). The Report shall identify</i></p> | |

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|---|--|--|---|
| | | <p><i>findings and significance of findings, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). A letter documenting receipt and acceptance of all fossil collections by the receiving institution shall be included in the Final Report. The Final Report, when submitted to and accepted by the Lead Agency (City of Ontario), shall signify satisfactory completion of mitigation of potential impacts to paleontological resources.</i></p> | |
| 4.11 Agricultural Resources | | | |
| <p>Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.</p> | <p>Potentially Significant.</p> | <p>No Feasible Mitigation Measures.</p> | <p><i>Significant and Unavoidable.</i> The Project would result in conversion of on-site Farmland to urban uses. Additional conversion of off-site agricultural lands to non-agricultural purposes could also occur as a result of construction of master plan infrastructure improvements supporting the Project. These are considered to be significant and unavoidable impacts. However, the Project would not cause or result in significant and unavoidable agricultural resources impacts</p> |

**Table 1.11-1
Summary of Impacts and Mitigation**

General Note: To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.

| Impact | Level of Significance Without Mitigation | Mitigation Measures | Level of Significance With Mitigation/Remarks |
|---|--|-----------------------------|--|
| | | | and loss of Farmland impacts beyond those already considered and addressed in the <i>Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment</i> EIR, The Ontario Plan EIR, and the Infrastructure Master Plans MND. Nor would the Project otherwise result in new significant and unavoidable agricultural resources impacts and loss of Farmland that would not otherwise occur pursuant to the Land Use Plan. |
| Conflict with existing zoning for agricultural use, or a Williamson Act contract. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.12 Utilities and Service Systems | | | |
| Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effect. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |

**Table 1.11-1
Summary of Impacts and Mitigation**

General Note: To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.

| Impact | Level of Significance Without Mitigation | Mitigation Measures | Level of Significance With Mitigation/Remarks |
|--|--|-----------------------------|---|
| Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| Comply with federal, state, and local statutes and regulations related to solid waste. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.13 Energy | | | |
| Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |

**Table 1.11-1
Summary of Impacts and Mitigation**

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.*

| Impact | Level of Significance Without Mitigation | Mitigation Measures | Level of Significance With Mitigation/Remarks |
|---|---|-----------------------------|--|
| Conflict with or obstruct a state or local plan for renewable energy or energy efficiency. | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |
| 4.14 Population and Housing | | | |
| Induce substantial unplanned population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure). | Less-Than-Significant. | No mitigation is necessary. | Not applicable. |

2.0 INTRODUCTION

2.0 INTRODUCTION

2.1 OVERVIEW

This Environmental Impact Report (DEIR or EIR) proposes development and operation of up to 7,014,000 square feet of high-cube fulfillment center warehouse uses and up to 1,441,000 square feet of business park uses (total of 8,455,000 square feet of development) on approximately 376.3 acres located in the City of Ontario, within San Bernardino County. Elements of the Project are further described at EIR Section 3.0, *Project Description*.

An EIR is an informational document intended to inform decision-makers and the general public of potentially significant environmental impacts of a Project. An EIR also identifies possible ways to preclude or minimize these potentially significant impacts (referred to as mitigation) and describes reasonable alternatives to the Project that may also reduce or avoid significant impacts. Having the authority to take action on the Project, the City of Ontario will consider the information in this EIR in their evaluations of the proposal. The findings and conclusions of the EIR regarding environmental impacts do not control the City's discretion to approve, deny, or modify the Project, but instead are presented as information to aid the decision-making process.

2.2 AUTHORIZATION

This EIR has been prepared by the City of Ontario in accordance with the *Guidelines for the Implementation of the California Environmental Quality Act (CEQA Guidelines)*, (Sections 15000-15387 of the California Code of Regulations), and the City *CEQA Guidelines, 2019* and updates. The Merrill Commerce Center Specific Plan considered in this EIR is a "project," as defined by Section 15378 of the *CEQA Guidelines*. The *CEQA Guidelines* stipulate that an EIR must be prepared for any project that may have a significant

impact on the environment. Upon initial environmental review of the Project, the City determined that the Merrill Commerce Center Specific Plan may have a significant adverse impact on the environment and, therefore, the preparation of an EIR was required.

2.3 LEAD AND RESPONSIBLE AGENCIES

CEQA defines a “lead agency” as the public agency which has the principal responsibility for carrying out or approving a Project which may have a significant effect upon the environment. Other agencies, e.g., the California Department of Transportation (Caltrans), the South Coast Air Quality Management District (SCAQMD) or the Regional Water Quality Control Board (RWQCB), which also have some authority or responsibility to issue permits for Project implementation, are designated as “responsible agencies.” Both the lead agency and responsible agencies must consider the information contained in the EIR prior to acting upon or approving the Project. The City of Ontario is the lead agency for the Project.

The City’s address is: City of Ontario
 303 East “B” Street
 Ontario, CA 91764
Contact: Chuck Mercier, Principal Planner

2.4 PROJECT APPLICANT

The Project Applicant is: Prologis
 3546 Concours Street, Suite 100
 Ontario, California 91764
Contact: Thomas Donahue, Director of Construction & Development

2.5 THE EIR PROCESS

When a public agency determines that there is substantial evidence that a Project may have a significant effect on the environment, the agency must prepare an EIR before a decision is made to approve or deny the Project. The purpose of the EIR is to disclose a project's potential environmental impacts and recommend measures to reduce or avoid significant impacts. The basic content of an EIR includes a description of the project under consideration and its objectives, a description of the existing project site and vicinity environmental conditions, a discussion of the potentially significant environmental effects of the project, recommended measures for reducing these effects, and identification and evaluation of feasible alternatives to the project which may also reduce potentially significant impacts of the proposal.

Typically, EIRs consist of two documents: a Draft EIR, distributed by the lead agency for review and comment by the general public and any interested governmental agencies; and a Final EIR, which consists of responses to comments received on, together with any necessary modifications to, the Draft EIR. After the Draft EIR has been circulated for review and the Final EIR has been prepared, the EIR must be certified by the lead agency as having complied with CEQA and considered by the agency's decision-making body before any action can be taken on a project.

When a public agency receives a complete project application or decides to undertake a Project of its own, it first determines if the project is subject to environmental review under CEQA and, if it is, the agency then typically prepares an Initial Study (IS) to determine if the project has the potential to cause significant adverse environmental effects. The IS serves as a tool to help the agency determine if an EIR is needed and also helps determine what issues should be examined in the EIR. An agency may skip the Initial Study process if it is evident in the preliminary assessment of a project that an EIR will be required.

The EIR process is initiated by the distribution of a Notice of Preparation (NOP). Together with the Initial Study, the NOP is sent to agencies and interested individuals

to solicit their suggestions for appropriate issues and types of analysis to be included in the Draft EIR. When preparation of the Draft EIR has been completed, it is circulated to responsible agencies, other affected or interested agencies, and interested members of the public for review and comment. The review period for a Draft EIR is typically 45 days. To provide for appropriate consideration in the Final EIR, all comments and concerns regarding the Draft EIR should be received by the lead agency during this 45-day period.

Responses to comments received on the Draft EIR are prepared by the lead agency and included in the Final EIR. The Final EIR may also contain some additional information about the project's potential impacts and minor corrections or modifications to the Draft EIR. The Final EIR must be certified by the lead agency's decision-making body before, or in conjunction with, any action to approve or deny a project.

CEQA requires that the EIR only address significant adverse impacts. The *CEQA Guidelines* suggest thresholds or standards which define the significance of various types of impacts. The *CEQA Guidelines* also state that the significance of impacts should be considered in relation to their severity and probability of occurrence. However, ultimately, the determination of the significance of impacts is at the discretion of the lead agency. The identification of significant impacts in the EIR does not prevent an agency from approving a project. A project may be approved if the lead agency determines that impacts cannot be feasibly mitigated below a level of significance and if the agency determines that there are important overriding considerations, such as social and economic benefits, which are sufficient to justify approval of the considered project.

2.6 EIR CONTENT AND FORMAT

This EIR is organized into seven Chapters or Sections, each addressing a separate aspect of the required content of an EIR as described in the *CEQA Guidelines*. A summary of the Project's impacts and recommended mitigation measures is provided at Chapter 1.0. An introduction and general overview of the environmental process and the format of this EIR can be found at Chapter 2.0. Chapter 3.0 contains a complete description of the

Project, including its location, objectives, and physical and operational characteristics. The complete and detailed environmental impact analysis is presented at Chapter 4.0. The topical issues mandated by CEQA dealing with cumulative impacts, alternatives, long-term implications of the Project, and energy conservation are found at Chapter 5.0. Chapter 6.0 lists and defines the acronyms and abbreviations contained in this document. Chapter 7.0 lists the information sources and persons consulted during the environmental analysis process, and presents a list of the persons who prepared the EIR. The Initial Study and responses to the NOP, with supporting technical studies, are appended to the primary EIR document.

Chapter 4.0, entitled “Environmental Impact Analysis,” is the focal component of the EIR. The environmental impact analysis has been organized into a series of sections, each addressing an environmental topic or area of concern identified through the Initial Study process (e.g., Land Use and Planning, Transportation, Air Quality, Noise, etc.). To assist the reader in understanding the organization and basis of the analysis, the sections covering each individual environmental topic are typically divided into the following subsections:

- **Reader’s Abstract:** An introductory reader’s abstract, summarizing content and findings, is provided at the beginning of each topical section.
- **Introduction:** The introduction summarizes the content of the section and references other important studies and reports, such as technical studies appended to the EIR.
- **Setting:** This subsection describes environmental conditions at the Project site and its vicinity which may be subject to change as a result of implementation of the proposal. Separate descriptions of existing environmental conditions are provided for each environmental topic.

- **Existing Policies and Regulations:** Various relevant policies, regulations, and programs related to the environmental topic are briefly described. Often, these existing policies and regulations serve to reduce or avoid potential environmental impacts.
- **Standards of Significance:** Before potential impacts are evaluated, the standards which will serve as the basis for judging significance are presented.
- **Potential Impacts and Mitigation Measures:** This subsection states and explains potential impacts caused by the Project. Based on the standards of significance, impacts are categorized as either potentially significant or less-than-significant. If the impacts are considered to be potentially significant, mitigation measures are proposed to reduce the impacts. At the conclusion of each discussion for a potentially significant impact, a determination is made as to whether the impact can be reduced to a less-than-significant level with the application of feasible mitigation measures. Impacts that cannot be reduced to levels that are less-than-significant are identified as “significant.”

The summary presented at Chapter 1.0 provides a comprehensive overview of the Project’s impacts. For a more detailed description of Project impacts, it is recommended that the reader review the Project description (Chapter 3.0), and then read the sections on the topics of interest in the environmental impact analysis (Chapter 4.0).

2.7 INTENDED USE OF THIS EIR

This EIR addresses the potential environmental effects of the implementation and operation of the proposed Merrill Commerce Center Specific Plan Project. The City of Ontario (City) is the Lead Agency for the purposes of CEQA because it has the principal responsibility and authority for deciding whether or not to approve the Project, and how it will be implemented. As the Lead Agency, the City is also responsible for preparing the environmental documentation for the Project in compliance with CEQA.

The Lead Agency will employ this EIR in its evaluation of potential environmental impacts resulting from, or associated with, approval and implementation of the Project, to include potential effects of the Project's component elements. It is anticipated that this EIR may also be employed by Responsible Agencies, e.g., Air Quality Management District(s), Regional Water Quality Control Board(s), *et al.*; as well as utilities and service providers for their related or dependent environmental analyses.

In employing this EIR, the City and other agencies need recognize that Project plans and development concepts identified herein are just that, plans and concepts which are subject to refinement and the Project is further defined. Recognizing the potential for these future minor alterations to the Project, this EIR in all instances evaluates likely maximum impact scenarios that would account for these minor alterations. These refinements and/or minor revisions to development proposals do not typically warrant modified or revised environmental documentation. Notwithstanding, at the discretion and direction of the City, substantive modifications to the Project described herein may warrant additional environmental evaluation.

2.8 DOCUMENTS INCORPORATED BY REFERENCE

Section 15150 of the State *CEQA Guidelines* permits and encourages an environmental document to incorporate, by reference, other documents that provide relevant data. The documents summarized below are incorporated by reference, and the pertinent material is summarized throughout this EIR, where that information is relevant to the analysis of potential impacts of the Project. All documents incorporated by reference are available for review at, or can be obtained through, the City of Ontario Planning Department.

2.8.1 City of Ontario Policy Plan (General Plan) and General Plan EIR

The Policy Plan serves as the City's General Plan which is mandated by state law. The City of Ontario Policy Plan (General Plan) establishes Goals and Policies and provides guidance for future development of the City. The General Plan, which was updated and adopted in 2010, incorporates and relies upon its Implementation Plan to provide the guidance necessary for successful implementation of General Plan Goals and Policies.

Ontario's General Plan is made up of nine elements: Land Use, Housing, Mobility, Safety (including Noise), Environmental Resources (including Conservation), Parks and Recreation (including Open Space), Community Economics, Community Design, and Social Resources. The General Plan EIR (SCH No. 2008101140) evaluates and addresses potential environmental impacts that would result from implementation of the General Plan. The General Plan and General Plan EIR documents contain background information employed in this EIR. These documents are available through the City of Ontario Planning Department, or can be accessed at: <http://www.ontarioplan.org/policy-plan/>.

2.8.2 City of Ontario Development Code

The City of Ontario Development Code (Development Code) codifies and complements the City General Plan. The Development Code, in effect, provides the mechanism to implement and enforce the goals, objectives, policies and programs articulated in the General Plan. The City's Development Code was adopted by the Ontario City Council on July 7, 1998 and continues to be periodically updated to reflect current Federal/State laws. The Development Code is available through the City of Ontario Planning Department, or can be accessed at: <https://www.ontarioca.gov/Planning/Applications>.

2.8.3 *Initial Study and Mitigated Negative Declaration City of Ontario Infrastructure Master Plans (City of Ontario) July 2012 (Infrastructure Master Plans MND).*

City of Ontario Master Plan infrastructure systems improvements that would be implemented by the Project would conform to City Master Plan Utilities/Service Systems Concepts. Descriptions of these Master Plan improvements are presented at EIR Section 3.0, *Project Description*. Potential impacts resulting from construction and operation of City Master Plan Utilities/Service Systems have been previously considered and addressed in *Initial Study and Mitigated Negative Declaration City of Ontario Infrastructure Master Plans (City of Ontario) July 2012 (Infrastructure Master Plans MND)*. The Infrastructure Master Plans MND concluded that construction and operation of Master Plan infrastructure improvements would not result in significant impacts not already considered and addressed in correlating analyses in The Ontario

Plan EIR. Similarly, Master Plan infrastructure improvements constructed in support of the Project would not result in significant impacts not already considered and addressed in correlating analyses presented within the Infrastructure Master Plans MND; and by extension would not result in significant infrastructure systems impacts not already considered and addressed in correlating analyses presented within The Ontario Plan EIR. Detailed analysis of impacts resulting from construction and operation of the Master Plan infrastructure improvements that would be constructed in support of the Project are addressed in this EIR. The Infrastructure Master Plans MND is available through the City of Ontario Planning Department.

2.8.4 Ontario Ranch Business Park Specific Plan Draft EIR (SCH No. 2019050018)

The Ontario Ranch Business Park Specific Plan is a contemporaneous light industrial/warehouse development proposal located within Ontario Ranch, approximately 1 mile westerly of the Merrill Commerce Center Specific Plan Project evaluated in this EIR. Relevant analyses presented in the Ontario Ranch Business Park Specific Plan Draft EIR inform certain of the discussions presented in this EIR for the Merrill Commerce Center Specific Plan Project. The Ontario Ranch Business Park Specific Plan Draft EIR is available through the City of Ontario Planning Department, or can be accessed at: <https://www.ontarioca.gov/Planning/Reports/EnvironmentalImpact>.

2.9 PROJECT TECHNICAL STUDIES/EIR APPENDICES

Following are summary descriptions of documents and supporting technical studies which are appended to the main body of the EIR. Working titles of these documents generically refer to the Project and its physical attributes, and may not necessarily reflect the currently assigned “Merrill Commerce Center Specific Plan” development title.

2.9.1 Initial Study, NOP, and NOP Responses - EIR Appendix A

The EIR Initial Study (IS), Notice of Preparation (NOP) and responses received pursuant to distribution of the IS/NOP are presented at EIR Appendix A. Based on the

Initial Study and responses to the NOP, the EIR addresses the following environmental topics:

- Agricultural Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources/Tribal Cultural Resources;
- Energy;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Hazards/Hazardous Materials;
- Hydrology/Water Quality;
- Land Use and Planning;
- Noise;
- Population/Housing;
- Transportation; and
- Utilities and Service Systems.

2.9.2 Merrill Commerce Center Specific Plan - EIR Appendix B

The *Merrill Commerce Center Specific Plan* (Specific Plan) is presented in its entirety at EIR Appendix B. If adopted by the City, the Specific Plan would become the effective zoning for the subject site, and would regulate all development within the site.

The proposed Specific Plan would establish land use plans, development standards, and design guidelines directing the ultimate buildout of the Project site. Land uses and development concepts reflected within the proposed Specific Plan can be feasibly implemented consistent with applicable provisions of the City General Plan (as amended) and City Development Code.

2.9.3 Transportation Impact Analysis - EIR Appendix C

Detailed analysis of the Project's potential VMT impacts is presented in *Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment* (Urban Crossroads, Inc.) January 14, 2020.

Additionally, although not specifically relevant to an analysis of CEQA transportation impacts, for City use and informational purposes, a Project Traffic Impact Analysis (Project TIA, TIA) addressing LOS impacts has been prepared (see: *Merrill Commerce Center Specific Plan, Traffic Impact Analysis, City of Ontario* [Urban Crossroads, Inc.] June 30, 2020. The TIA identifies Study Area LOS deficiencies and recommends improvements to address any identified deficient conditions. Project trip generation estimates developed as part of the Project TIA are employed in the EIR VMT analysis and the trip generation estimates also employed in related analyses (e.g., vehicular-source emissions air quality impacts, vehicular-source noise impacts) presented elsewhere in this EIR.

2.9.4 Air Quality Impact Analysis - EIR Appendix D

Air quality impact analyses germane to the Project are provided at EIR Appendix D. These analyses include: *Merrill Commerce Center Specific Plan, Air Quality Impact Analysis, City of Ontario* (Urban Crossroads, Inc.) January 12, 2020; *Merrill Commerce Center Specific Plan, Mobile Source Health Risk Assessment, City of Ontario* (Urban Crossroads, Inc.) January 12, 2020; and *Merrill Commerce Center Specific Plan, Construction Health Risk Assessment Memorandum* (Urban Crossroads, Inc.) January 12, 2020.

2.9.5 Greenhouse Gas Analysis - EIR Appendix E

Detailed analysis of the Project's potential Greenhouse Gas and Global Climate Change impacts are presented in *Merrill Commerce Center Specific Plan, Greenhouse Gas Analysis, City of Ontario* (Urban Crossroads, Inc.) January 12, 2020.

2.9.6 Noise Impact Analysis - EIR Appendix F

Potential noise impacts of the Project, including construction-source and operational source noise impacts are assessed within *Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario* (Urban Crossroads, Inc.) July 28, 2020.

2.9.7 Environmental Site Assessments - EIR Appendix G

An assessment of potential hazards/hazardous conditions affecting the Project site and potential hazards resulting from the Project, including potential effects at off-site land uses is provided in:

- *Phase I Environmental Site Assessment, Borba Land Phase II (189 acres), 14545 South Grove Avenue, Ontario, California 91762* (Partner Engineering and Science, Inc.) May 2, 2017;
- *Limited Phase II Subsurface Investigation and Limited Methane Investigation Report, Borba Land Phase II (189 acres) 14545 South Grove Avenue, Ontario, California 91762* (Partner Engineering and Science, Inc.) June 26, 2017;
- *Phase I Environmental Site Assessment, GH Dairy Farm, 8643 Eucalyptus Avenue, Ontario, San Bernardino County, California* (AECOM) April 13, 2017;
- *Limited Phase II Environmental Site Assessment, GH Dairy, 8643 Eucalyptus Avenue, Ontario, San Bernardino County, CA* (AECOM) June 12, 2017;
- *Phase I Environmental Site Assessment Report, Minaberry Land, 8731 Eucalyptus Avenue, Ontario, California 91762* (Partner Engineering and Science, Inc.) February 28, 2017;
- *Limited Methane Investigation Report, 8731 Eucalyptus Avenue, Ontario, California 91762* (Partner Engineering and Science, Inc.) May 31, 2017;
- *Phase I Environmental Site Assessment Report, Lanting Land, 9032 Merrill Avenue and 8911 Eucalyptus Avenue, Ontario, California 91762* (Partner Engineering and Science, Inc.) August 24, 2018;
- *Limited Phase II Subsurface Investigation and Limited Methane Investigation Report, Lanting Land, 9032 Merrill Avenue, Ontario, California 91762* (Partner Engineering and Science, Inc.) August 31, 2018;

- *Phase I Environmental Site Assessment Report, Alewyn Land, 9031 Eucalyptus Avenue, Ontario, California 91762* (Partner Engineering and Science, Inc.) August 2, 2018; and
- *Limited Methane Investigation Report, Alewyn Land, 9031 Eucalyptus Avenue, Ontario, California 91762* (Partner Engineering and Science, Inc.) August 31, 2018.

2.9.8 Hydrology Report - EIR Appendix H

Potential impacts of the Project on hydrology and water quality are assessed in: *Technical Memorandum Borba II Project [Merrill Commerce Center Specific Plan Project] Hydrology & Hydraulic Assessment* (JLC Engineering & Consulting, Inc.) September 19, 2019 (Project Hydrology Report); *Preliminary Water Quality Management Plan (PWQMP) for Merrill Commerce Center Specific Plan Project* (JLC Engineering & Consulting, Inc.) September 17, 2019 (Project WQMP).

2.9.9 Biological Report - EIR Appendix I

Biological resources potentially affected by the Project are assessed in: *Biological Technical Report for Merrill Commerce Center Specific Plan, Located in the City of Ontario, San Bernardino County, California with Off-Site Improvements Located in the Cities of Ontario and Chino, San Bernardino County, California* (Glenn Lukos Associates, Inc.) September 19, 2019.

2.9.10 Geotechnical Investigations - EIR Appendix J

An assessment of the soils and geological conditions affecting the Project site and vicinity properties is presented in:

- *Geotechnical Feasibility Study, Proposed Commercial/Industrial Development, NEC Grove Avenue and Merrill Avenue, Ontario, California* (Southern California Geotechnical) November 21, 2017;
- *Geotechnical Feasibility Study, Proposed Commercial/Industrial Development, NWC Vineyard Avenue and Merrill Avenue, Ontario, California* (Southern California Geotechnical) November 21, 2017;

- *Geotechnical Investigation, Proposed Commercial/Industrial Development, 8643 Eucalyptus Avenue, Ontario, California* (Southern California Geotechnical) May 18, 2017;
- *Geotechnical Investigation, Proposed Commercial/Industrial Development, NWC Merrill Avenue and Carpenter Avenue, Ontario, California* (Southern California Geotechnical) August 21, 2018.

The Geotechnical Investigations also provide recommendations pertaining to geotechnical aspects of constructing the Project.

2.9.11 Cultural Resources Investigation - EIR Appendix K

A cultural resources investigation was prepared for the Project: *Cultural Resources Study for the Merrill Commerce Center Specific Plan Project, City of Ontario, San Bernardino County, California* (Brian F. Smith and Associates, Inc.) August 27, 2019. Additionally, historical resources that may be affected by the Project were in: *Proposed Merrill Commerce Center Specific Plan – Revised Historical Resource Survey* (Urbana Preservation & Planning) April 28, 2020. Paleontological resources impacts are evaluated in: *Paleontological Resource Assessment for the Proposed Merrill Commerce Center Specific Plan Project, City of Ontario, Southern San Bernardino County, California* (Brian F. Smith and Associates, Inc.) April 1, 2020.

2.9.12 Project Water Supply Assessment (WSA) - EIR Appendix M

The Project WSA (*Water Supply Assessment Merrill Commerce Center Specific Plan for City of Ontario* [Placeworks] July 2019) evaluates Project water supply and reliability under near-term and long-range scenarios; and under normal, dry and extended drought conditions.

2.9.13 Project Energy Estimates - EIR Appendix N

Detailed Project construction energy consumption estimates are presented in the *Merrill Commerce Center Specific Plan Energy Tables* (Urban Crossroads, Inc.) January 22, 2020.

3.0 PROJECT DESCRIPTION

3.0 PROJECT DESCRIPTION

3.1 PROJECT OVERVIEW AND LOCATION

The Merrill Commerce Center Specific Plan Project (Project, Specific Plan) proposes development and operation of Specific Plan Industrial and Business Park Land Uses on approximately 376.3 acres located in the City of Ontario, within San Bernardino County. The Project site¹ is located within the Ontario Ranch (formerly known as New Model Colony, NMC) area of the City. More specifically, the Project site is located along Merrill Avenue, between Grove Avenue and Carpenter Avenue. Eucalyptus Avenue forms the northerly boundary of the Specific Plan area. Please refer to Figure 3.1-1, *Project Location*.

The Specific Plan area is apportioned into approximately 292.8 acres of Industrial Land Use; approximately 55.1 acres of Business Park Land Use; and approximately 28.4 acres allocated for Circulation (vehicular and non-vehicular) rights-of-ways, easements, and similar non-building uses. The Specific Plan Land Use Plan is presented subsequently at 3.4-3. Detailed information regarding land uses and development that would be allowed under the Specific Plan is presented within the *Merrill Commerce Center Specific Plan* (T&B Planning, Inc.) September 29, 2020, EIR Appendix B. The Specific Plan document in total is incorporated in this Project Description by reference.

¹ The Project site is defined as the area encompassed by the Merrill Commerce Center Specific Plan (the Specific Plan area). The analysis presented in this Environmental Impact Report (EIR) considers and addresses environmental impacts resulting from development of the Project site proper, and also evaluates impacts that would result from off-site activities or improvements necessary to implement and support the Project.



NOT TO SCALE

Source: Google Earth; Applied Planning, Inc.

----- Project Site Boundary

Under the Project Development Concept evaluated in this EIR, the Specific Plan area would be developed with the following uses:

- **Industrial:** Approximately 6,312,600 square feet of high-cube fulfillment center warehouse use, and approximately 701,400 square feet of high-cube cold storage warehouse use.
- **Business Park:** Approximately 1,441,000 square feet of mixed uses including merchant wholesale, professional services, professional office, warehouse/storage, and research and development.

Total Development: 8,455,000 square feet

The Project would also implement off-site City of Ontario Master Plan infrastructure improvements (roads, potable water, recycled water, sanitary sewer, storm drains, and fiber optic lines) in support of the Project. Predominantly, off-site areas that would be affected by construction of these infrastructure improvements comprise already-disturbed/developed rights-of-way and easements. City of Ontario Master Plan infrastructure systems improvements that would be implemented by the Project would conform to City Master Plan Utilities/Service Systems Concepts. Descriptions of infrastructure systems that would be implemented in support of the Project improvements are presented within this Section. Detailed analysis of impacts resulting from construction and operation of Master Plan infrastructure improvements that would be constructed in support of the Project is presented in this EIR.

It is also noted that potential impacts resulting from construction and operation of City Master Plan infrastructure systems have been previously considered and addressed in Initial Study and Mitigated Negative Declaration City of Ontario Infrastructure Master Plans (City of Ontario) July 2012 (Infrastructure Master Plans MND). The Infrastructure Master Plans MND concluded that construction and operation of Master Plan infrastructure improvements would not result in significant impacts not already considered and addressed in correlating analyses in The Ontario Plan EIR. Similarly,

Master Plan infrastructure improvements constructed in support of the Project would not result in significant impacts not already considered and addressed in correlating analyses presented within the Infrastructure Master Plans MND; and by extension would not result in significant infrastructure systems impacts not already considered and addressed in correlating analyses presented within The Ontario Plan EIR.

Analyses within this EIR reflect the range and types of uses permitted or conditionally permitted under the Specific Plan Industrial and Business Park Land Use designations. Should future development proposals proposed within the Specific Plan area, or supporting infrastructure proposed as part of the Project, differ substantially from the development concepts analyzed herein, the Lead Agency would comply with CEQA in consideration of those proposals.

It is specifically noted that any site plan concepts, building footprints, building sizes, and/or building orientations depicted in the EIR or supporting technical analyses are provided for illustrative purposes only. This EIR in all instances evaluates likely maximum impact scenarios. No site plans or building plans would be entitled under the EIR Project or as part of the Specific Plan approval.

3.2 EXISTING LAND USES

Existing land uses within, and adjacent to, the Project site are illustrated at Figure 3.2-1 and described below. Representative photos of existing Project site conditions are presented at Figures 3.2-2 through 3.2-6.

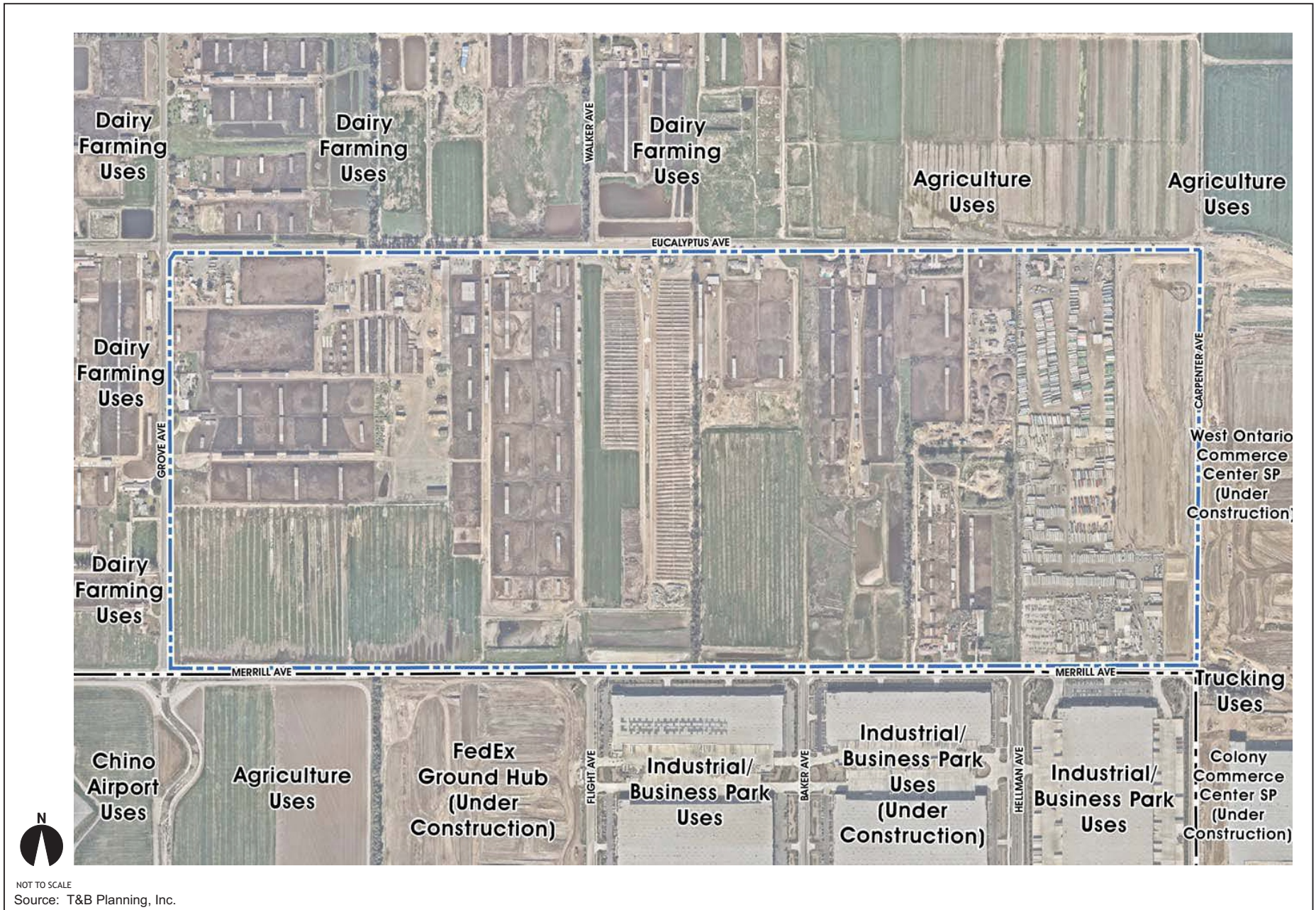


Figure 3.2-1
Existing Land Uses



View of truck service building and office.



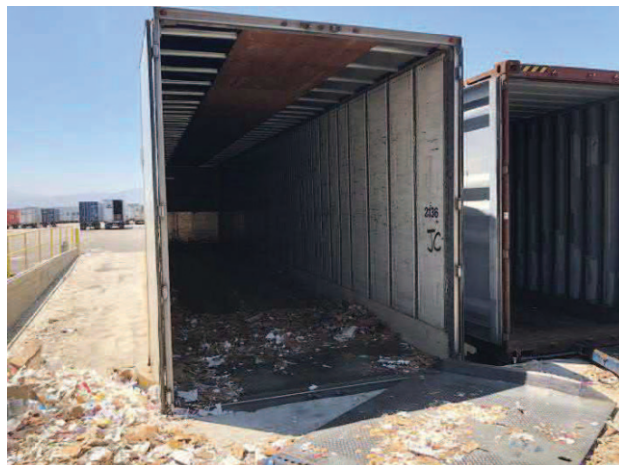
View of truck washing area.



View of three-chamber clarifier in truck washing area.



View of paper product storage by shelter.



View of paper product loading area by shelter.



View of unpaved truck parking area.

Source: Partner Engineering and Science, Inc.; AECOM; Applied Planning, Inc.



View of former dairy structure.



View of fenced cattle pasture.



View of stormwater drainage swale.



View of wastewater leachfield.



View of wastewater lagoon.



View of 35-gallon drum of iodine and associated leaking.

Source: Partner Engineering and Science, Inc.; AECOM; Applied Planning, Inc.



View of scrap storage (vehicles, scrap wash water treatment drums).



View of scrap storage.



View of scrap storage.



View of beef ranch area.



View of pallet company.



View of manure piles (mixed with clean sand).

Source: Partner Engineering and Science, Inc.; AECOM; Applied Planning, Inc.



View of a typical calf corral.



View of the milk bottle and other milking equipment cleaning area located in the calf milk barn.



View of maintenance shop.



View of 10,000-gallon and three 1,000-gallon diesel ASTs for fueling.



View of fuel pump for the 10,000-gallon diesel AST with staining around the base.



View of typical feed silos.

Source: Partner Engineering and Science, Inc.; AECOM; Applied Planning, Inc.



View of scrap metal storage.



View of old equipment located in the scrap metal yard.



View of several empty 55-gallon drums.



View of vehicle/equipment staging for parts.



View of the interior of an abandoned milk barn.



View of the detention ponds.

Source: Partner Engineering and Science, Inc.; AECOM; Applied Planning, Inc.

3.2.1 Project Site

The Project site currently evidences dairy farm uses, interior unpaved roads, cattle stockades, support equipment for cattle and dairy farming, bio-retention basins, a trucking operation in the easterly portion of the Project site, and appurtenant residences at various locations within the Project site.

The Project site is extensively disturbed and evidences environmental degradation due to historic and on-going agricultural and trucking uses. Such degradation includes, but is not limited to:

- Animal waste from the long-term dairy farm uses have potentially created methane gas, and soil contamination from nitrates and ammonia.
- Numerous automotive fluids, including several large above ground storage tanks (ASTs) on or near the on-site maintenance shop. These materials are used for maintaining and repairing farm equipment.
- Additional ASTs used for truck and equipment refueling are located on-site.
- A scrap metal area containing drums, ASTs, farming equipment, and vehicles is located on the property.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to the pastures for irrigation.
- Holding ponds for contaminated runoff from agricultural/dairy farm operations. Discharge from these ponds to surrounding areas; and potential infiltration of contaminated runoff to underlying groundwater.

- General debris observed throughout the property, including vehicle equipment staging areas, used tires, concrete rubble piles, compressors, and generators may have the potential to impact on-site surficial soil.
- Presence of septic systems.

3.2.2 Vicinity Land Uses

Eucalyptus Avenue comprises the northerly Project site boundary. Northerly, across Eucalyptus Avenue, are dairy farming and agricultural land uses. Carpenter Avenue comprises the easterly Project site boundary. Easterly, across Carpenter Avenue, properties are designated for Specific Plan development: West Ontario Commerce Center Specific Plan, Parkside Specific Plan, and Colony Commerce Center Specific Plan. The Colony Commerce Center Specific Plan and the West Ontario Commerce Center Specific Plan are current under construction. Merrill Avenue comprises the southerly Project site boundary. Merrill Avenue at this location is also the common City of Ontario/City of Chino municipal boundary. Southerly, across Merrill Avenue, are agricultural uses, and industrial/business park land uses (existing and under construction) located in the City of Chino. Grove Avenue comprises the westerly Project site boundary. Westerly, across Grove Avenue, are dairy farming land uses. Chino Airport is located southwesterly of the Project site, within the City of Chino.

3.3 EXISTING LAND USE DESIGNATIONS

Existing City of Ontario Policy Plan (General Plan) Land Use designations for the Project site are “Business Park,” “Office Commercial,” and “General Commercial.” Zoning for the Project site is Specific Plan with an AG (Agricultural) Overlay.

3.4 PROJECT ELEMENTS

3.4.1 Existing and Proposed Land Use Designations

Existing City of Ontario Policy Plan (General Plan) Project site Land Use designations are: “Business Park,” “Office Commercial,” and “General Commercial.” To allow for the Project, the Applicant proposes to amend the current Project site Policy Plan Land Use

designations to “Business Park” and “Industrial.” Existing and proposed Policy Plan Land Use designations are summarized at Table 3.4-1 and are illustrated at Figure 3.4-1.

**Table 3.4-1
Existing and Proposed Policy Plan Land Use Designations**

| Existing | Proposed |
|---------------------------------|----------------------------|
| Business Park – 314.7 acres | Business Park - 55.1 acres |
| Office Commercial - 43.3 acres | Industrial - 292.8 acres |
| General Commercial - 18.3 acres | Circulation - 28.4 acres |
| Total: 376.3 Acres | Total: 376.3 Acres |

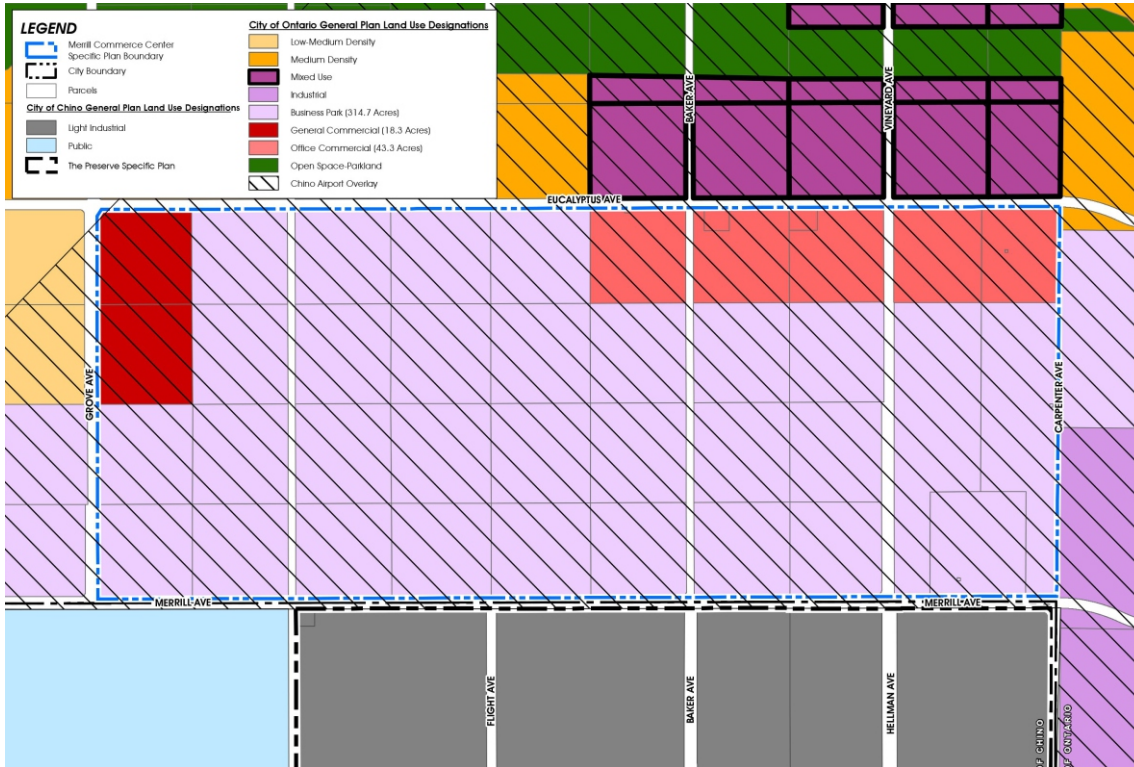
The existing Zoning designation of the Project site is “Specific Plan” with an “AG” (Agricultural) Overlay. If adopted by the City, the proposed Merrill Commerce Center Specific Plan would establish the effective Zoning of the Project site. Existing and proposed zoning designations are presented at Figure 3.4-2.

3.4.2 Site Preparation, Construction Traffic Management

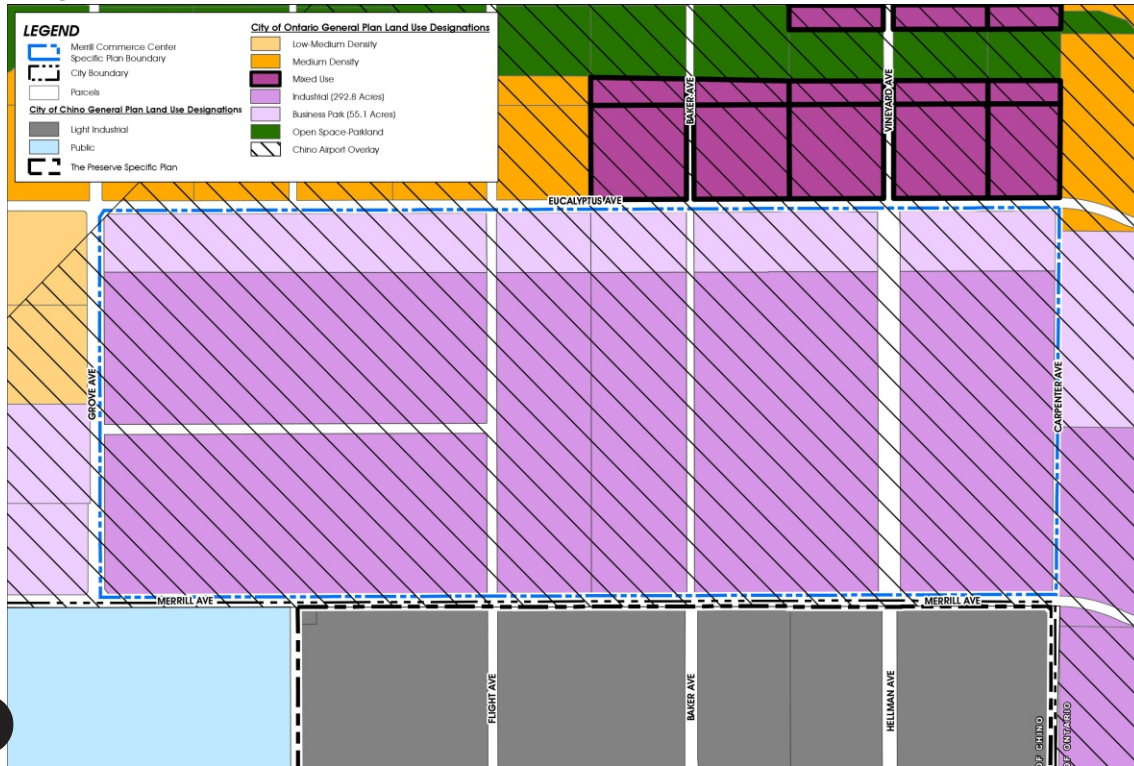
As an initial action, the Project site would be cleared of vegetation. All on-site improvements associated with or supporting the existing on-site land uses would be demolished or removed. At a minimum, debris generated by site preparation and demolition activities would be disposed of/recycled consistent with provisions of the California Integrated Waste Management Plan Act (AB 939) and the City’s Integrated Waste Department *Refuse and Recycling Planning Manual*.²

² City of Ontario, California: *Solid Waste Department* [Integrated Waste Department] *Refuse and Recycling Manual*, Updated March 17, 2016. <https://www.ontarioca.gov/omuc/integrated-waste>.

Existing:



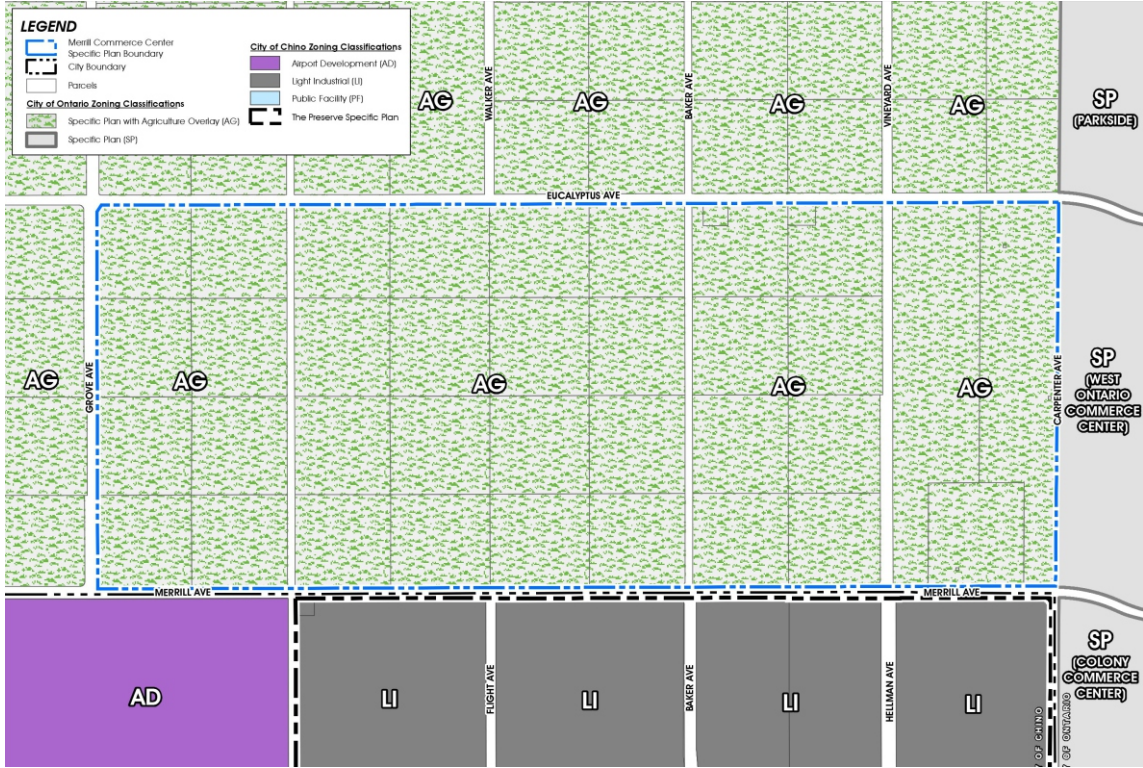
Proposed:



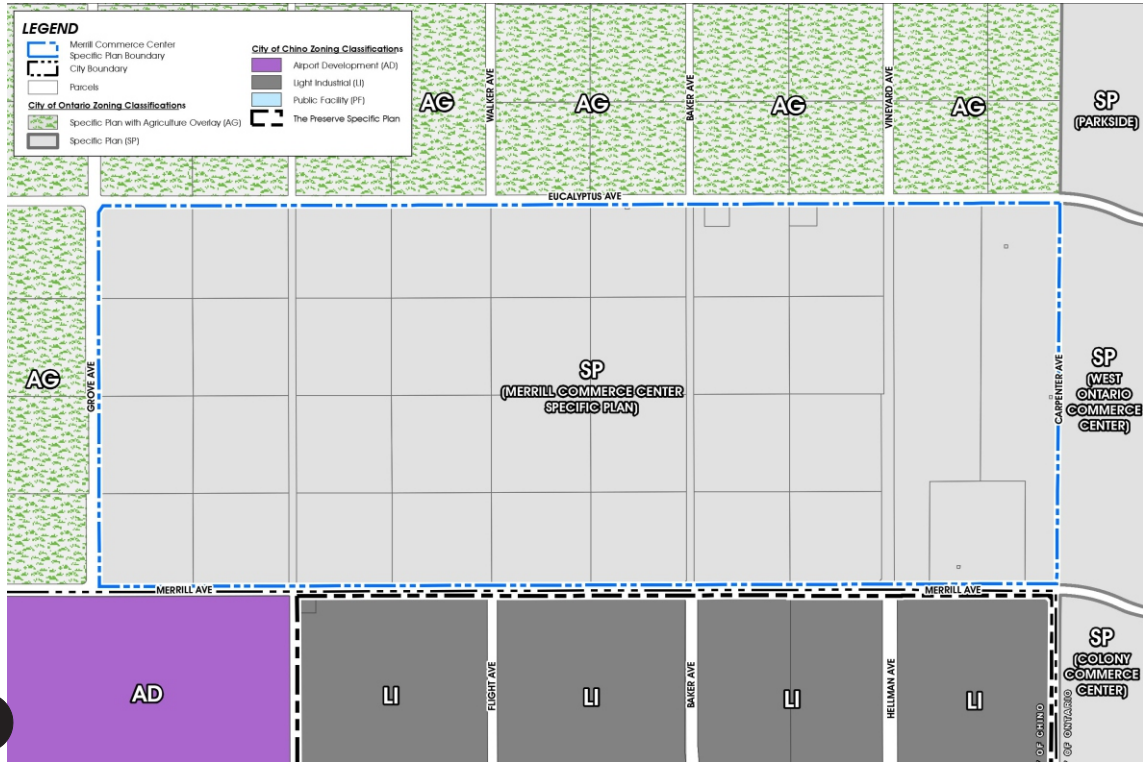
NOT TO SCALE

Source: City of Ontario, City of Chino

Existing:



Proposed:



NOT TO SCALE

Source: City of Ontario, City of Chino

The natural topography of the Project site is relatively flat. No unusual grading conditions are present and substantial import or export of earth materials is not expected. The primary objectives of the grading plan are to: provide stable development pads for construction; balance the cut and fill grading quantities on-site; and meet City of Ontario building standards and acceptable infrastructure gradient requirements.

To avoid or minimize temporary construction-related traffic impacts throughout site preparation and construction activities, the Project Applicant would be required to prepare and implement a City-approved Construction Traffic Management Plan (Plan). Typical elements and information incorporated in the Plan would include, but not be limited to:

- **Name of on-site construction superintendent and contact phone number.**
- **Identification of Construction Contract Responsibilities** - For example, for excavation and grading activities, describe the approximate depth of excavation, and quantity of soil import/export (if any).
- **Identification and Description of Truck Routes** - to include the number of trucks and their staging location(s) (if any).
- **Identification and Description of Material Storage Locations (if any).**
- **Location and Description of Construction Trailer (if any).**
- **Identification and Description of Traffic Controls** - Traffic controls shall be provided per the Manual of Uniform Traffic Control Devices (MUTCD) if the occupation or closure of any traffic lanes, parking lanes, parkways or any other public right-of-way is required. If the right-of-way occupation requires configurations or controls not identified in the MUTCD, a separate traffic control plan must be submitted to the City for review and approval. All right-of-way encroachments would require permitting through the City.

- **Identification and Description of Parking** - Estimate the number of workers and identify parking areas for their vehicles.
- **Identification and Description of Maintenance Measures** - Identify and describe measures taken to ensure that the work site and public right-of-way would be maintained (including dust control).

The Plan would be reviewed and approved by the City prior to the issuance of the first building permit. The Plan and its requirements would also be required to be provided to all contractors as one component of building plan/contract document packages.

3.4.3 Development Concept

3.4.3.1 Land Use Plan Concept

The Specific Plan Land Use Plan is presented at Figure 3.4-3. The Specific Plan area comprises approximately 376.3 acres apportioned as follows:

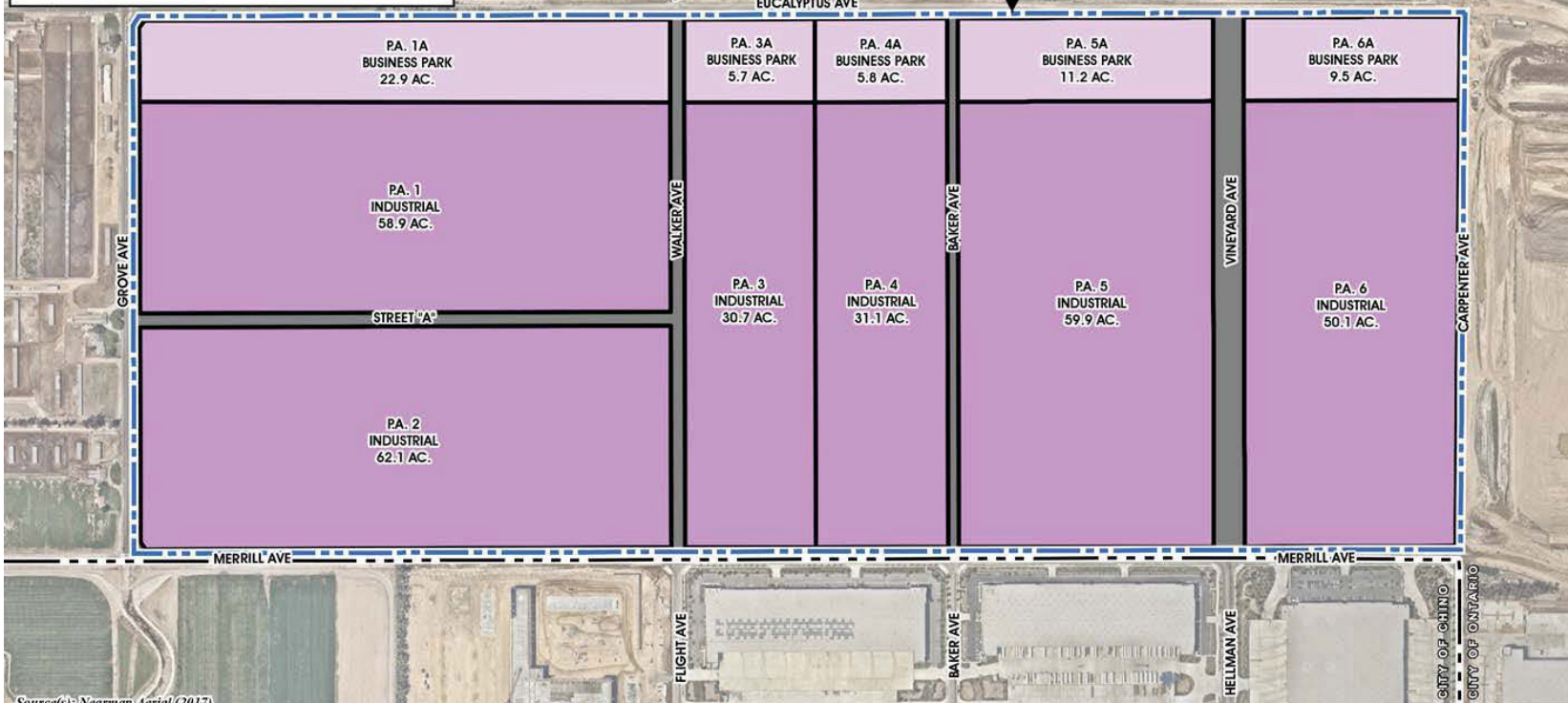
- Industrial Land Use: Approximately 292.8 acres;
- Business Park Land Use: Approximately 55.1 acres; and
- Circulation (vehicular and non-vehicular): Approximately 28.4 acres.

Under the Project Development Concept evaluated in this EIR, the Specific Plan area would be developed with the following uses:

| LAND USE PLAN STATISTICAL SUMMARY | | | | |
|--|----------------------|--------------------|-------------|-------------------------------------|
| PLANNING AREA | LAND USE DESIGNATION | ACRES ¹ | FAR | BUILDING SQ. FOOTAGE ^{2,3} |
| Industrial | | | | |
| 1 | Industrial | 58.9 | 0.55 | 1,411,000 SF |
| 2 | Industrial | 62.1 | | 1,488,000 SF |
| 3 | Industrial | 30.7 | | 735,000 SF |
| 4 | Industrial | 31.1 | | 745,000 SF |
| 5 | Industrial | 59.9 | | 1,435,000 SF |
| 6 | Industrial | 50.1 | | 1,200,000 SF |
| Total Industrial Acreage and Maximum Building SF | | 292.8 | 0.55 | 7,014,000 SF |
| Business Park | | | | |
| 1A | Business Park | 22.9 | 0.60 | 598,000 SF |
| 3A | Business Park | 5.7 | | 150,000 SF |
| 4A | Business Park | 5.8 | | 152,000 SF |
| 5A | Business Park | 11.2 | | 293,000 SF |
| 6A | Business Park | 9.5 | | 248,000 SF |
| Total Business Park Acreage and Maximum Building SF | | 55.1 | | 0.60 |
| TOTALS | | 376.3 AC | | 8,455,000 SF |

Notes:

1. Acreages are approximate and subject to survey verification.
2. Building square footage calculated by multiplying the total acreage of each planning area by the anticipated floor area ratio (FAR) for the respective land use designation (FAR of 0.55 is applicable to the Industrial land use designation and FAR of 0.60 is applicable to the Business Park land use designation).
3. Building square footages per planning area are approximate. Maximum building square footages indicated for each land use shall not be exceeded.
4. Land Use Plan is for conceptual purposes only.



MERRILL COMMERCE CENTER



Source(s): Nearmap Aerial (2017)

NOT TO SCALE
Source: T&B Planning, Inc.

Figure 3.4-3
Land Use Plan

- **Industrial Land Use:** The Specific Plan Industrial Land Use would be developed with approximately 6,312,600 square feet of high-cube fulfillment center warehouse use, and approximately 701,400 square feet of high-cube cold storage warehouse use.
- **Business Park Land Use:** The Specific Plan Business Park Land Use would be developed with approximately 1,441,000 square feet of mixed uses including merchant wholesale, professional services, professional office, warehouse/storage, and research and development.

Total Development: 8,455,000 square feet

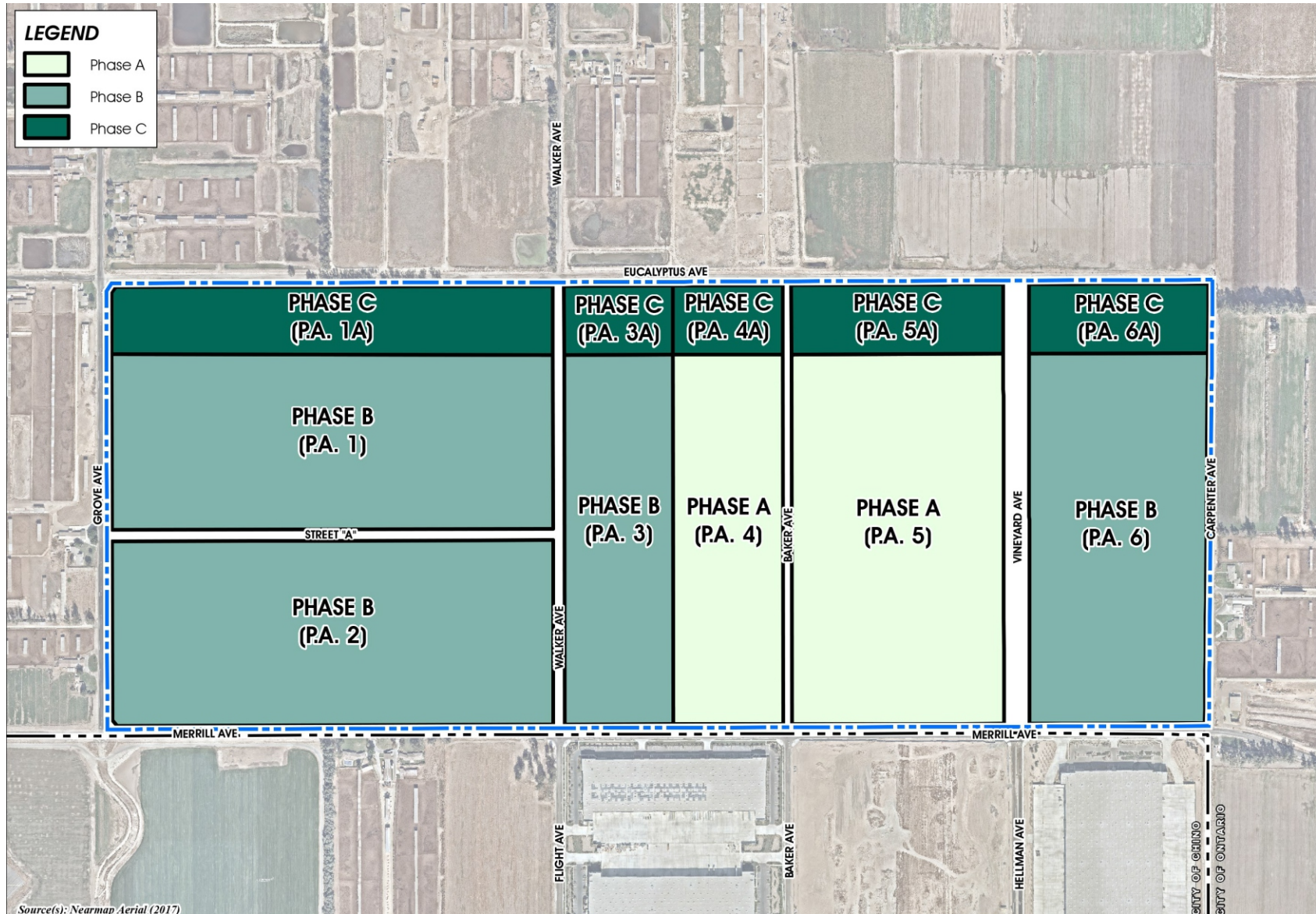
Analyses within this EIR address the range and types of uses permitted or conditionally permitted under the Specific Plan Industrial and Business Park Land Use designations. Should future development proposals proposed within the Specific Plan area, or supporting infrastructure proposed as part of the Project differ substantially from the development concepts analyzed herein, the Lead Agency would comply with CEQA in consideration of those proposals.

3.4.3.2 Project Phasing Concept

The Project would be implemented in 3 Phases – “A,” “B,” and “C” as illustrated at Figure 3.4-4, *Phasing Concept*. Phase A is anticipated to be completed by 2022, Phase B by 2025, and Phase C by 2026. Project phasing would ultimately respond to market demands and would be contingent on availability of supporting infrastructure.

3.4.3.3 Access and Circulation

The Project Access and Circulation Concept is presented at Figure 3.4-5. Access to the Specific Plan area would be provided via surrounding roadways, including Merrill Avenue, Grove Avenue, Vineyard Avenue, and Eucalyptus Avenue. The roadway improvements listed below would be constructed as part of the Specific Plan buildout. Please refer also to Specific Plan Section 4.1, *Circulation and Access Plan* for further details regarding Project roadway and access improvements.



Source(s): Nearmap Aerial (2017)

NOT TO SCALE

Source: T&B Planning, Inc.

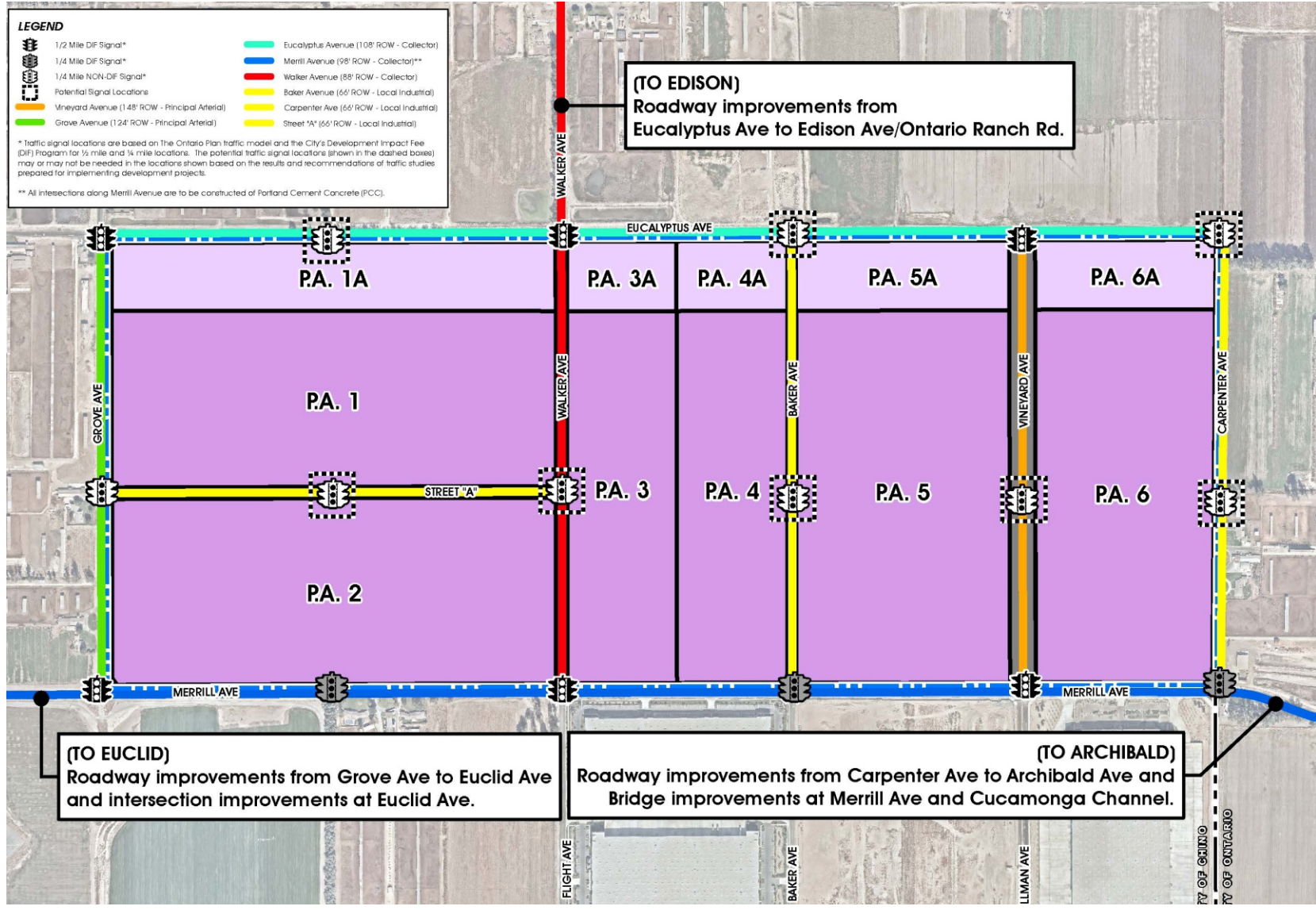
Figure 3.4-4
Phasing Concept

LEGEND

- 1/2 Mile DIF Signal*
- 1/4 Mile DIF Signal*
- 1/4 Mile NON-DIF Signal*
- Potential Signal Locations
- Vineyard Avenue (148' ROW - Principal Arterial)
- Grove Avenue (124' ROW - Principal Arterial)
- Eucalyptus Avenue (108' ROW - Collector)
- Merrill Avenue (98' ROW - Collector)**
- Walker Avenue (88' ROW - Collector)
- Baker Avenue (66' ROW - Local Industrial)
- Carpenter Ave (66' ROW - Local Industrial)
- Street 'A' (66' ROW - Local Industrial)

* Traffic signal locations are based on The Ontario Plan traffic model and the City's Development Impact Fee (DIF) Program for 1/2 mile and 1/4 mile locations. The potential traffic signal locations (shown in the dashed boxes) may or may not be needed in the locations shown based on the results and recommendations of traffic studies prepared for implementing development projects.

** All Intersections along Merrill Avenue are to be constructed of Portland Cement Concrete (PCC).



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 3.4-5
Circulation Plan

- Walker Avenue would be constructed as a north-south oriented Collector road that would connect to Edison Avenue/Ontario Ranch Road to the north and Merrill Avenue to the south;
- Street “A” would be constructed as an east-west oriented Local Industrial Street that would provide access through the western portion of the Specific Plan area and connect to Grove Avenue at its westerly terminus and future Walker Avenue at its easterly terminus;
- Baker Avenue would be constructed as a north-south oriented Local Industrial Street that would provide access through the Specific Plan area and connect to Eucalyptus Avenue at its northerly terminus and Merrill Avenue at its southerly terminus;
- Vineyard Avenue would be constructed as a north-south oriented Principal Arterial that would provide access through the Specific Plan area and connect to Eucalyptus Avenue at its northerly terminus and Merrill Avenue at its southerly terminus;
- Frontage improvements to Carpenter Avenue as a Local Industrial roadway along the entirety of the easterly Specific Plan boundary;
- Frontage improvements to Eucalyptus Avenue as a Collector roadway along the entirety of the northerly Specific Plan boundary;
- Frontage improvements to Grove Avenue as a Principal Arterial roadway along the entirety of the westerly Specific Plan boundary;
- Improvements to the segment of Merrill Avenue as a Collector roadway located between Euclid Avenue and Archibald Avenue; and
- Widening of the existing bridge crossing Merrill Avenue at the Cucamonga Flood Control Channel.

3.4.3.4 Utilities Infrastructure

Development of the Project would require the installation of water, sewer, drainage and other utility facilities. Proposed utilities infrastructure plans and improvements to be implemented by the Project are summarized below.

City of Ontario Policy Plan Policy LU4-3 *Infrastructure Timing* requires that necessary infrastructure and services be in place prior to or concurrent with new development. Similarly, the Merrill Commerce Center Specific Plan includes a development phasing plan and infrastructure phasing plan that require infrastructure supporting buildout of the Specific Plan be adequately phased concurrent with development (see: Specific Plan, p. A-6).

Potable Water Plan

The Project Potable Water Plan Concept is presented at Figure 3.4-6. Context of the Project within the City of Ontario Ultimate Water System is presented at Figure 3.4-6A. Potable water services to the Specific Plan area would be provided by the City of Ontario (Ontario Municipal Utilities Company, OMUC).

Currently there are no City potable water mains or City potable water infrastructure in the vicinity of the Project. Potable Water System Improvements for the Specific Plan area require the planning, design, and construction of the 925 Pressure Zone (PZ) Phase 2 West Backbone, which includes:

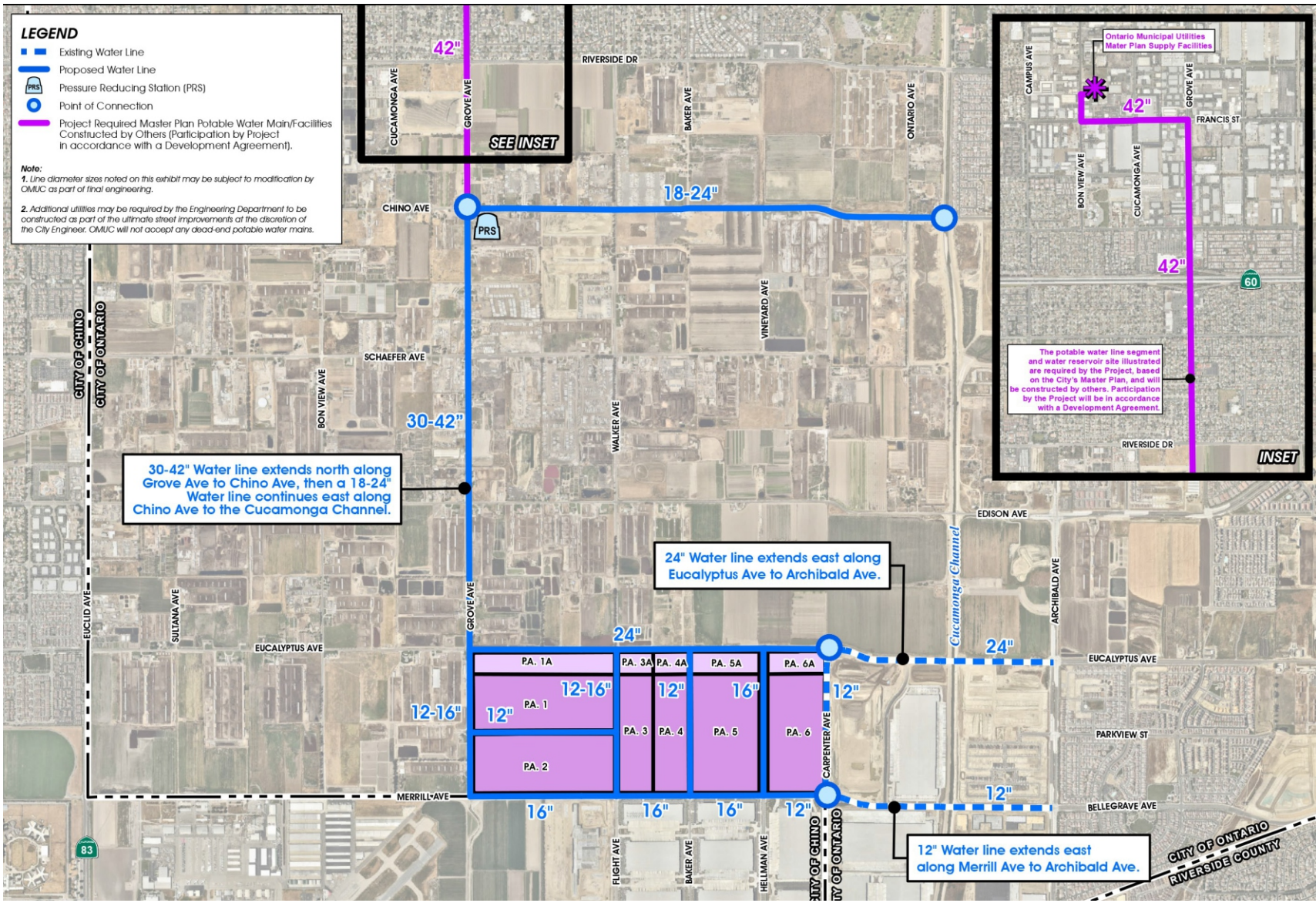
- Extending the 24-inch potable water main in Eucalyptus Avenue from Carpenter Avenue to Grove Avenue;
- A 30-inch to 42-inch potable water main in Grove Avenue connecting from the 24-inch potable water main in Eucalyptus Avenue and extending to Chino Avenue;
- An 18-inch to 24-inch potable water main in Chino Avenue and connecting to the existing 18-inch potable water main located on the west side of the Cucamonga Creek Channel;
- A Pressure Reducing Station between the 1010 PZ and 925 PZ near the intersection of Grove Avenue and Chino Avenue.

LEGEND

- Existing Water Line
- Proposed Water Line
- Pressure Reducing Station (PRS)
- Point of Connection
- Project Required Master Plan Potable Water Main/Facilities Constructed by Others (Participation by Project in accordance with a Development Agreement).

Note:

1. Line diameter sizes noted on this exhibit may be subject to modification by OMUC as part of final engineering.
2. Additional utilities may be required by the Engineering Department to be constructed as part of the ultimate street improvements at the discretion of the City Engineer. OMUC will not accept any dead-end potable water mains.



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 3.4-6
Conceptual Water Plan

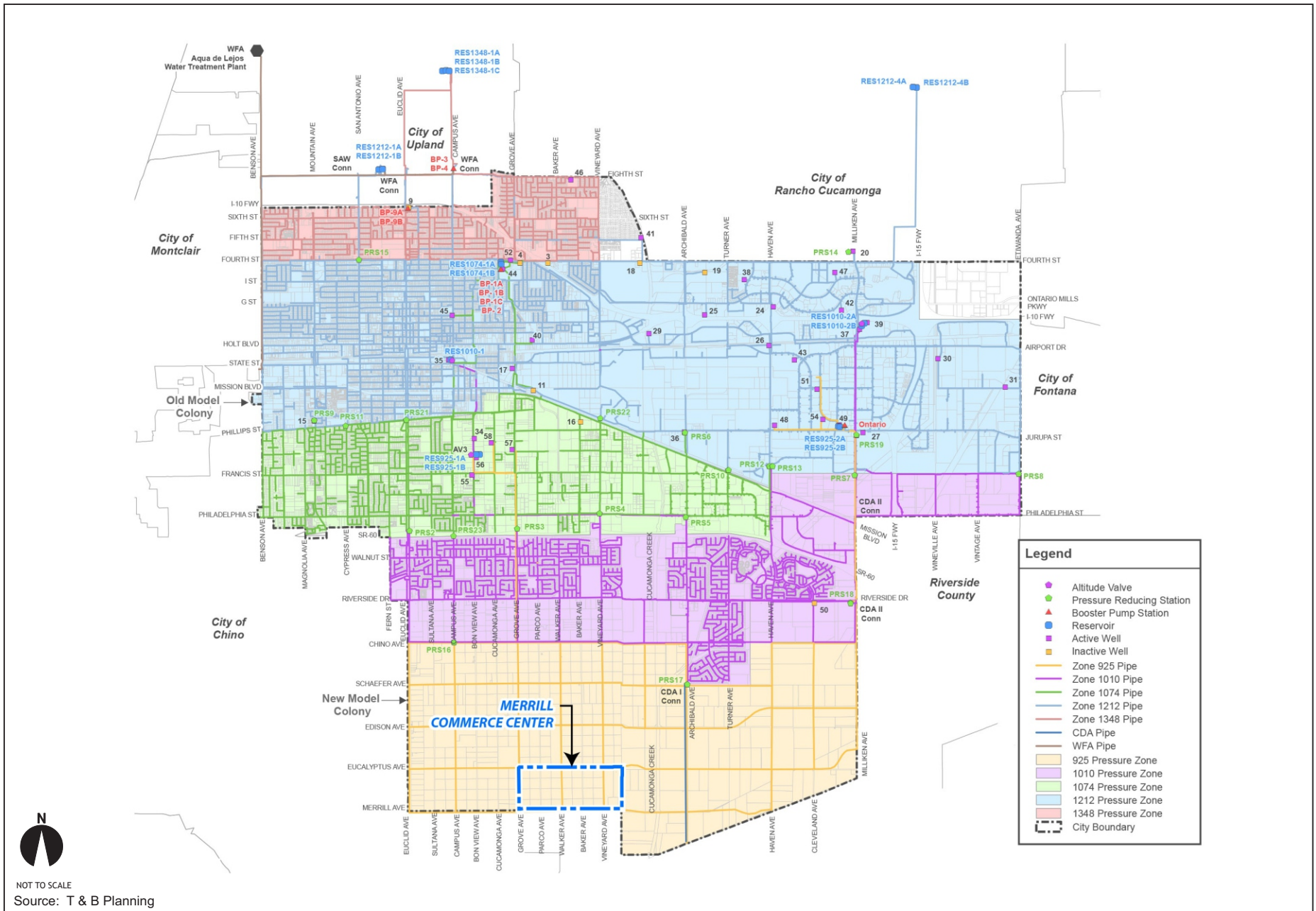


Figure 3.4-6A
City of Ontario Water Master Plan

Master Plan Phase 2 facilities that are required to serve the Project but that will be constructed by others include:

- A 42-inch potable water main in Grove Avenue connecting from the 30-inch potable water main in Grove Avenue at Chino Ave and extending to Francis Avenue;
- A 42-inch potable main in Francis Avenue connecting from the 42-inch potable water main in Grove Avenue and extending to Bon View Avenue;
- A 42-inch potable water main in Bon View Avenue connecting from the 42-inch potable water main in Francis Avenue and extending to the Bon View Avenue Reservoir site and to the Reservoir;
- A 9 million gallon reservoir on the Bon View Reservoir site, two 2,500 gpm wells with any treatment necessary to meet water quality standards and the 16-inch to 42-inch well collection mains from the wells to the reservoirs.

At the time the Specific Plan was prepared, the alignment of the 42-inch water line between Chino Avenue and the water reservoir site had not been finalized and is subject to change. The Project will be required to participate in the future Phase 2 Water System Improvements north of Chino Avenue, as detailed in the Development Agreement with the City.

In addition to the 925 Pressure Zone (PZ) Phase 2 West Backbone system described above, the Project would implement a Secondary Loop between the 925 Pressure Zone (PZ) Phase 2 West Backbone system and the Project site. These improvements would include:

- A 24-inch potable water main in Eucalyptus Avenue connecting to the 30-inch to 42-inch 925 Pressure Zone (PZ) Phase 2 West Backbone main in Grove Avenue;

- A 16-inch potable water main in Merrill Avenue connecting from the 12-inch to 16-inch potable water main in Grove Avenue and extending to Vineyard Avenue;
- A 16-inch potable water main in Vineyard Avenue connecting from the 16-inch potable water main in Merrill Avenue and extending to connect to the 24-inch potable water main in Eucalyptus Avenue; and
- A 12-inch potable water main in Merrill Avenue connecting from the 16-inch potable water main in Vineyard Avenue and extending east to connect to the 12-inch potable water main in Carpenter Avenue.

The Project would also construct the Local Adjacent Potable Water System. Improvements would include:

- A 12-inch to 16-inch potable water main in Grove Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue;
- A 12-inch to 16-inch potable water main in Walker Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue;
- A 12-inch potable water main in Baker Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue; and
- A 12-inch potable water main in "Street A" connecting to the 12-inch potable water main in Grove Avenue and extending to connect to the 12-inch to 16-inch potable water main in Walker Avenue.

Water infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final



designs. Orientation and configuration of water mains are also subject to change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including Inland Empire Utility Agency (IEUA) water mains, that do not meet minimum depths, standard alignment locations, and/or minimum horizontal and vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, all onsite potable water systems, non-potable water systems, and fire protection/suppression water systems shall be private and be privately-maintained.

Sanitary Sewer Plan

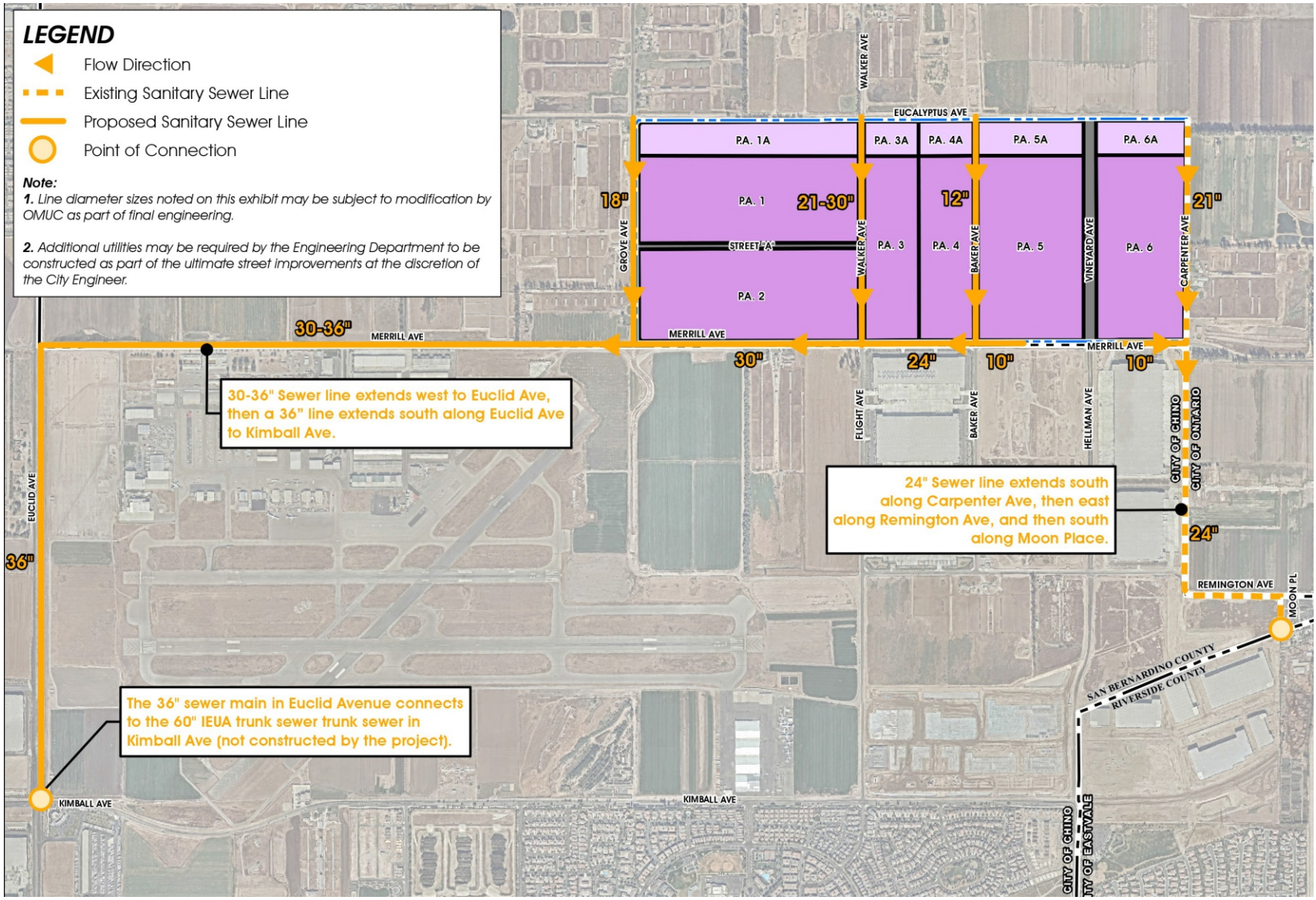
The Project Sanitary Sewer Plan Concept is presented at Figure 3.4-7. Context of the Project with the City of Ontario Ultimate Sewer System is presented at Figure 3.4-7A. Sanitary sewer service to the Project site and surrounding area is provided by OMUC. OMUC conveys wastewater to IEUA for transmission to area-serving treatment facilities.

Existing 21-inch and existing 24-inch City sanitary sewer mains are located in Carpenter Avenue to the east and south of the Project site. The Project site and surrounding properties are included within the City's Sewer Master Plan. The areas west of Vineyard Avenue are Tributary to the Western Trunk Sewer (WTS), which connect to IEUA's system at Kimball Avenue and Euclid Avenue. The areas east of Vineyard Avenue are Tributary to the Eastern Trunk Sewer (ETS), through the City's Carpenter Trunk Sewer which connect to IEUA's system at Vineyard/Hellman Avenue and the San Bernardino/Riverside County line. Specific Plan Planning Areas 1 to 5 and 1A to 5A are within the WTS tributary area. Specific Plan Planning Areas 6 and 6A are within the ETS tributary area.

LEGEND

-  Flow Direction
-  Existing Sanitary Sewer Line
-  Proposed Sanitary Sewer Line
-  Point of Connection

Note:
 1. Line diameter sizes noted on this exhibit may be subject to modification by OMUC as part of final engineering.
 2. Additional utilities may be required by the Engineering Department to be constructed as part of the ultimate street improvements at the discretion of the City Engineer.



30-36" Sewer line extends west to Euclid Ave, then a 36" line extends south along Euclid Ave to Kimball Ave.

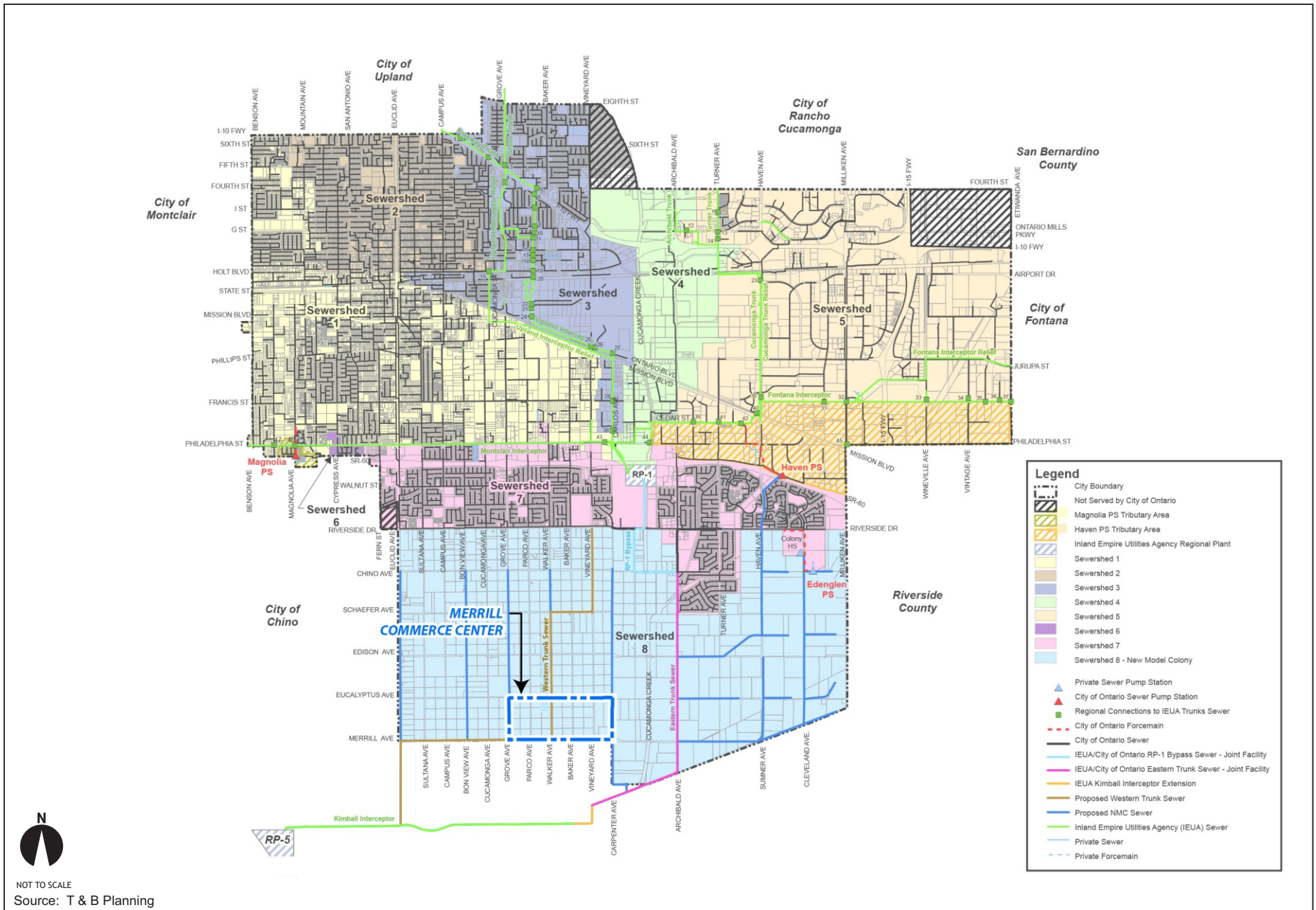
24" Sewer line extends south along Carpenter Ave, then east along Remington Ave, and then south along Moon Place.

The 36" sewer main in Euclid Avenue connects to the 60" IEUA trunk sewer trunk sewer in Kimball Ave (not constructed by the project).



NOT TO SCALE
 Source: T&B Planning, Inc.

Figure 3.4-7
 Conceptual Sewer Plan



NOT TO SCALE
Source: T & B Planning

Figure 3.4-7A
City of Ontario Sewer Master Plan

The Project would construct the following Primary Sewer Master Plan Backbone mains of the WTS:

- A 36-inch sewer main in Euclid Avenue connecting to the IEUA's 60-inch Kimball Interceptor at the intersection of Kimball Avenue and Euclid Avenue and extending north to Merrill Avenue;
- A 30-inch to 36-inch sewer main in Merrill Avenue from Euclid Avenue to Grove Avenue;
- A 30-inch sewer main in Merrill Avenue from Grove Avenue to Walker Avenue; and
- A 21-inch to 30-inch sewer main in Walker Avenue from Merrill Avenue to Eucalyptus Avenue.

In addition to the Primary Sewer Master Plan Backbone mains, the Specific Plan area requires the planning, design, and construction of a Secondary Master Plan Trunk Sewer, which includes: installing an 18-inch Grove Trunk Sewer main in Grove Avenue from the WTS in Merrill Avenue and extending north in Grove Avenue to Eucalyptus Avenue.

The Project would also construct the Local Adjacent Sewer System. These improvements include:

- A 10-inch sewer main in Merrill Avenue from Carpenter Avenue extending westerly towards Vineyard Avenue;
- A 24-inch sewer main in Merrill Avenue from the WTS in Walker Avenue and extending easterly to Baker Avenue;
- A 10-inch sewer main in Merrill Avenue from Baker Avenue extending easterly towards Vineyard Avenue; and
- A 12-inch sewer main in Baker Avenue from Merrill Avenue extending northerly toward Eucalyptus Avenue.

Sanitary sewer infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final designs. Sewer main orientations and configurations are also subject to

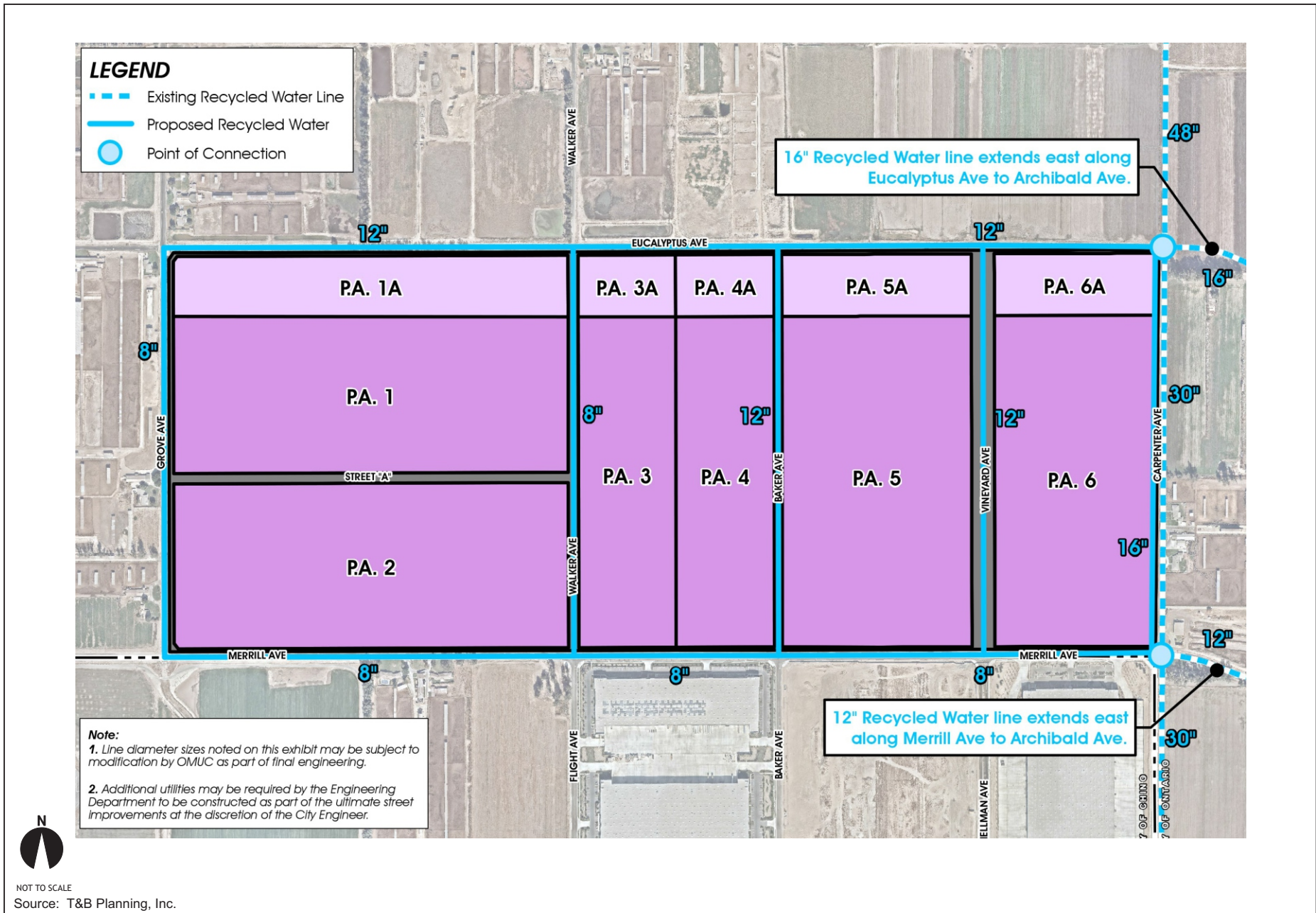
change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including IEUA Recycled Water mains, that do not meet minimum depth, standard alignment locations, and/or minimum horizontal and vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, the onsite sanitary sewer systems shall be private and be privately maintained.

Recycled Water Plan

The Project Recycled Water Plan Concept is presented at Figure 3.4-8. Context of the Project within the City of Ontario Future Recycled Water System is presented at Figure 3.4-8A. In the vicinity of the Project, existing City recycled water infrastructure is located in Carpenter Avenue, Eucalyptus Avenue, and Merrill Avenue. Recycled water supplied to the Project would be provided by OMUC. OMUC recycled water supplies are produced by IEUA from IEUA's four wastewater reclamation plants. The Project site and surrounding properties lie within the City's Master Plan 930 Pressure Zone.

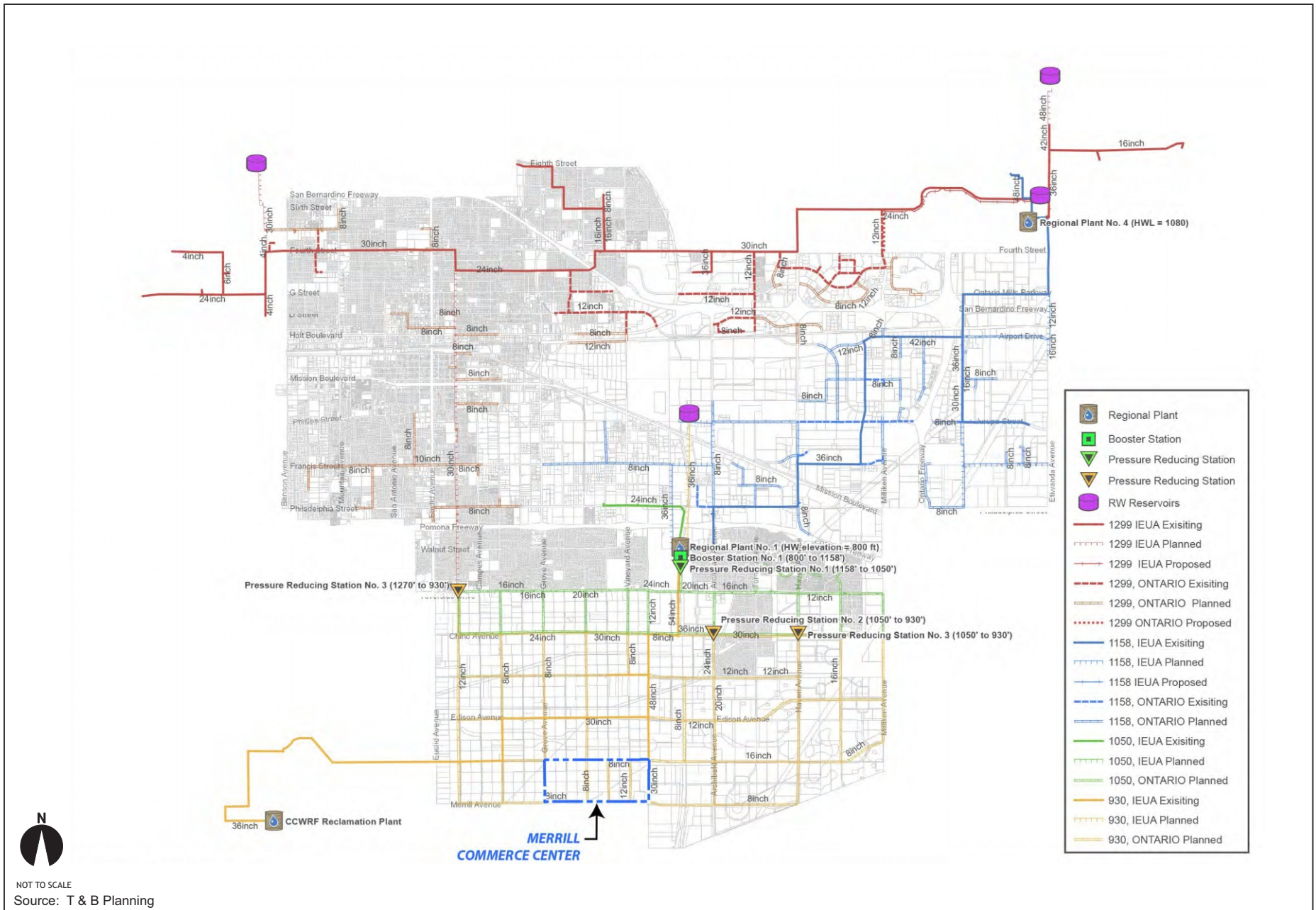
The following Master Plan 930 Pressure Zone recycled water system improvements would be constructed as part of the Project:

- A 16-inch recycled water main in Carpenter Avenue connecting to the 16-inch 930 Pressure Zone Recycled Water main in Eucalyptus Avenue and extending it to connect to the 8-inch 930 Pressure Zone Recycled Water main in Merrill Avenue;
- A 12-inch recycled water main in Eucalyptus Avenue connecting to the existing 16-inch 930 Pressure Zone recycled water main at the intersection of Carpenter Avenue and Eucalyptus Avenue and extending to Grove Avenue;
- An 8-inch recycled water main in Merrill Avenue connecting to the existing City 12-inch 930 Pressure Zone Recycled Water main in Merrill Avenue at the intersection of Merrill Avenue and Carpenter Avenue and extending westerly to Baker Avenue;



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 3.4-8
Conceptual Recycled Water Plan



- An 8-inch recycled water main in Merrill Avenue connecting to the 12-inch recycled water main in Merrill Avenue at Baker Avenue and extending westerly to Grove Avenue.

In addition to the Master Plan 930 Pressure Zone improvements listed above, the Project would construct the following Secondary Loop improvements:

- An 8-inch recycled water main in Merrill Avenue connecting to the 8-inch recycled water main in Merrill Avenue at Grove Avenue and extending west to Euclid Avenue.

The Project would also construct the Local Adjacent Recycled Water System. These improvements include:

- A 12-inch recycled water main in Vineyard Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue;
- A 12-inch recycled water main in Baker Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue;
- An 8-inch recycled water main in Walker Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue.

Recycled water infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final designs. Recycled water main orientations and configurations are also subject to change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including IEUA Recycled Water mains, that do not meet minimum depth, standard alignment locations, and/or minimum horizontal and

vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, the onsite recycled water systems shall be private and be privately maintained.

Storm Water Management Plan

The Project Storm Water Management Plan Concept is presented at Figure 3.4-9. Context of the Project within the City of Ontario Planned Drainage Facilities is presented at Figure 3.4-9A. The Project Storm Water Management Plan Concept responds to and incorporates City of Ontario Master Plan of Drainage standards. Storm drain improvements listed below would be installed to service the Specific Plan area. Line diameter sizes and other storm drain facility sizes noted herein may be subject to modification by the City of Ontario and/or the San Bernardino Flood Control District as part of the Project final designs and engineering. Where required by the City, storm drains shall be equipped with a hydrodynamic separator(s) to satisfy the statewide trash mandate. Each device will be approved by and listed on the Certified Full Capture System List of Trash Treatment Control Devices of the State Water Resources Control Board (SWRCB). Project stormwater management system improvements include:

- An 8-foot by 13-foot Reinforced Concrete Box (RCB) in the segment of Eucalyptus Avenue located between Walker Avenue and Vineyard Avenue;
- A 3-foot by 6-foot RCB, a double 4-foot by 8-foot RCB, a double 8-foot by 9-foot RCB, and a double 12-foot by 10-foot RCB in various segments of Merrill Avenue between the midpoint of the southerly boundary of Planning Area 2 and Carpenter Avenue;
- A 24-inch storm drain line in the segment of Walker Avenue located between the southerly boundary of Planning Area 1A and Merrill Avenue;

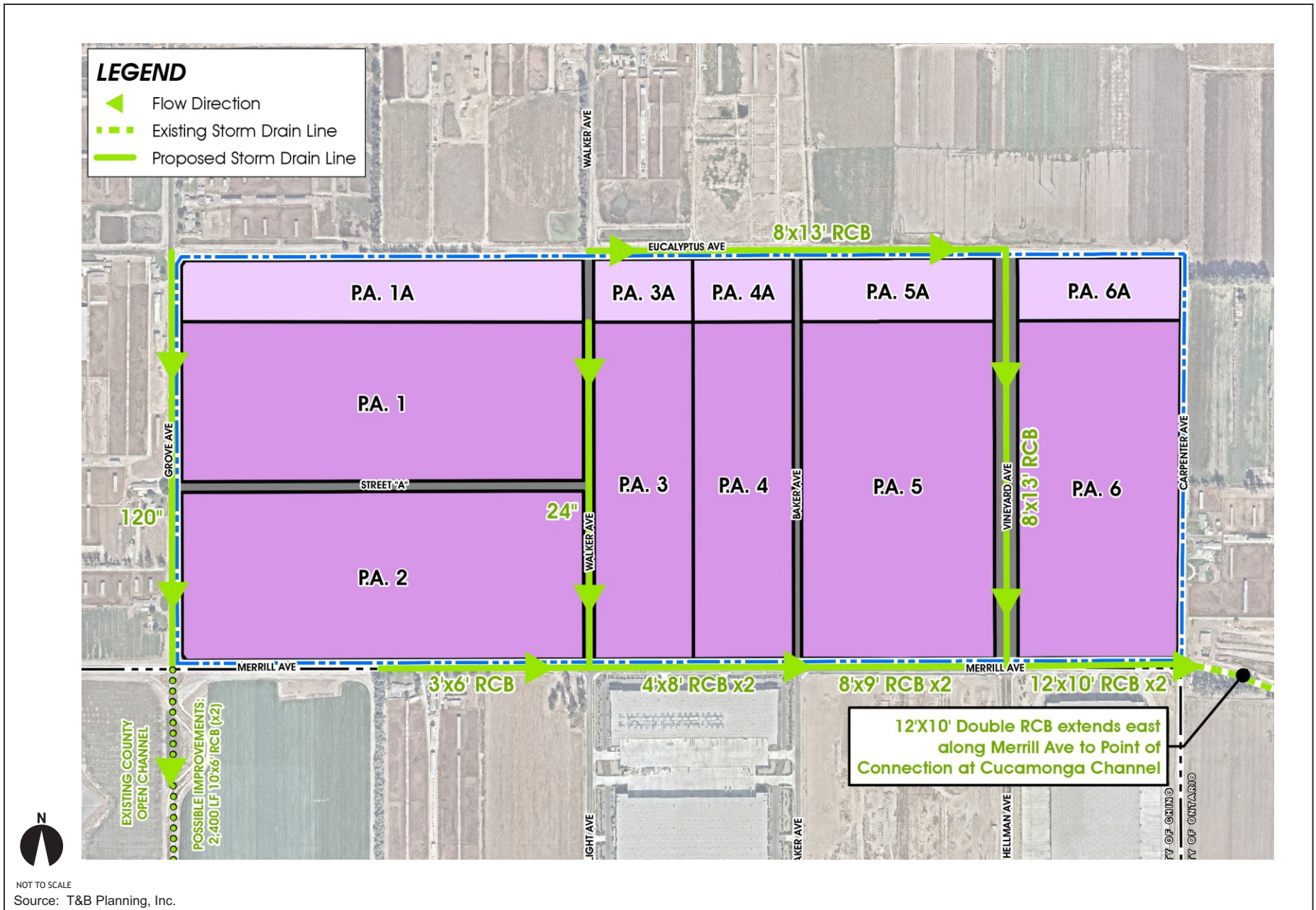
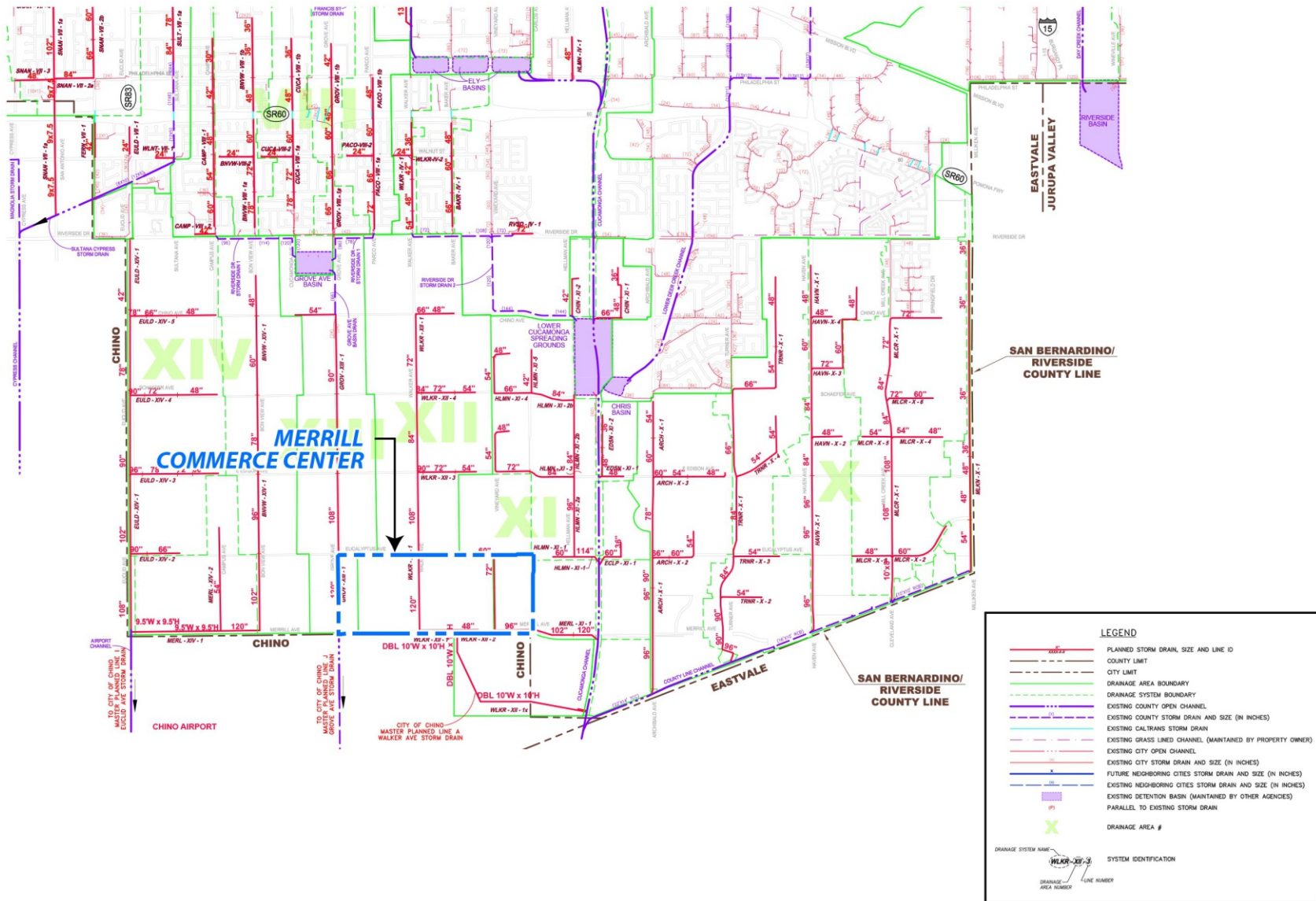


Figure 3.4-9
Conceptual Storm Drain Plan



NOT TO SCALE
Source: T & B Planning

Figure 3.4-9A
City of Ontario Planned Drainage Facilities

- A 120-inch storm drain line in the segment of Grove Avenue located between Eucalyptus Avenue and Merrill Avenue (with a point of connection to the existing open flood channel located south of the intersection of Merrill Avenue and Grove Avenue); and
- An 8-foot by 13-foot RCB in the segment of Vineyard Avenue located between Merrill Avenue and Eucalyptus Avenue.
- Additionally, the developer(s) of the Project may be conditioned to improve the existing open flood channel located south of the intersection of Merrill Avenue and Grove Avenue. Improvements may consist of either lowering the elevation of the existing earthen channel or installing a double 10-foot by 6-foot RCB within the existing earthen channel to connect to an existing RCB located at the southerly terminus of the existing earthen flood channel. The ultimate solution will be determined during the final Project design and engineering process.
- On-site storm drain improvements would include storm water detention/retention/water quality basins, which would capture, treat, and provide controlled release of storm water discharges to the public storm drain system.

Planning Areas 1, 1A, and 2 would drain southerly, the drainage ultimately flowing into either a water quality basin located in the southwest portion of Planning Area 2, the existing flood channel located south of the intersection of Merrill Avenue and Grove Avenue, or to the RCB drainage system in Merrill Avenue, which would then convey flows easterly to the Cucamonga Channel.

Storm water flows from Planning Areas 3 and 3A would drain southerly, the drainage ultimately flowing into either the 24-inch line within Walker Avenue or to the RCB system in Merrill Avenue.

Planning Areas 4 and 4A would also drain southerly, the drainage ultimately flowing to either a storm drain line installed in Baker Avenue or to the RCB system in Merrill Avenue.

Planning Areas 5, 5A, 6 and 6A would drain southerly, the drainage ultimately flowing to the 8-foot by 13-foot RCB in Vineyard Avenue or the double 8-foot by 9-foot RCB in Merrill Avenue.

Stormwater discharges from Planning Areas 3, 3A, 4, 4A, 5, 5A, 6, and 6A would ultimately drain easterly to an existing inlet connection to the Cucamonga Creek Channel via the existing double 12-foot by 10-foot RCB in Merrill Avenue (east of Carpenter Avenue).

Dry Utilities/Fiber Optics Plan

Figure 3.4-10 presents the Project Dry Utilities Infrastructure Plan concept. Dry utility lines (e.g., natural gas lines, electric lines) would be installed within joint trenches in Merrill Avenue and would connect to existing lines in Merrill Avenue to the west of Grove Avenue, and to existing lines in Merrill Avenue to the east of Carpenter Avenue. Lateral dry utility lines within joint trenches would be installed in Grove Avenue, Vineyard Avenue, and Eucalyptus Avenue. The lateral dry utility line within Eucalyptus Avenue would connect to existing dry utility lines in Merrill and Archibald Avenue to the east. The lateral dry utility lines within Grove Avenue and Vineyard Avenue would connect to the primary dry utility lines within Merrill Avenue.

Dry utilities internal to the Specific Plan Area would be installed underground in accordance with applicable purveyor standards and specifications and to the satisfaction of the City Engineer. The locations and configurations of utilities connections, transformers, switches, pull boxes, and manholes would be determined in conjunction with final Project designs and engineering. Existing power poles located along Eucalyptus Avenue and Merrill Avenue will be undergrounded as part of the Specific Plan's buildout.

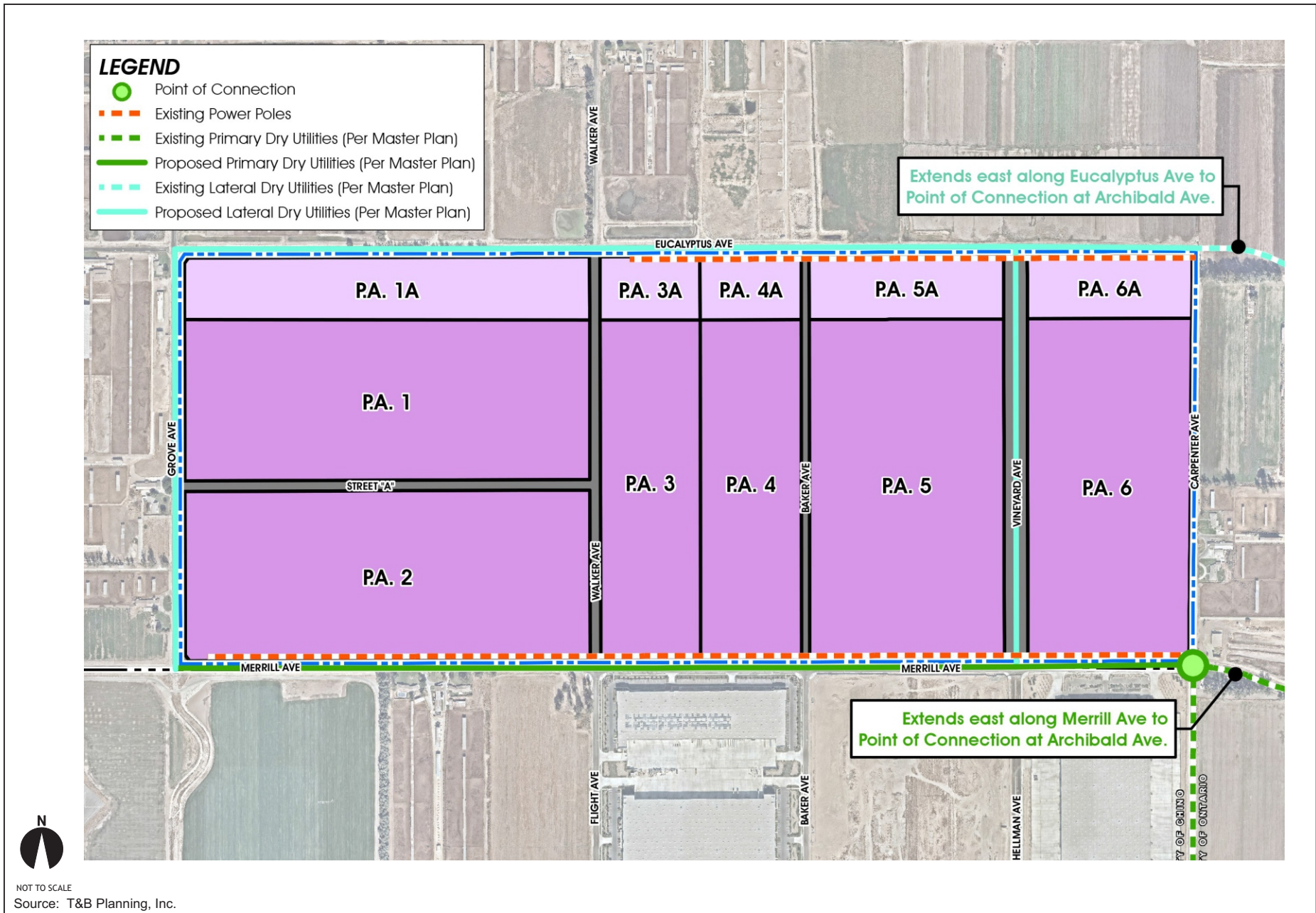
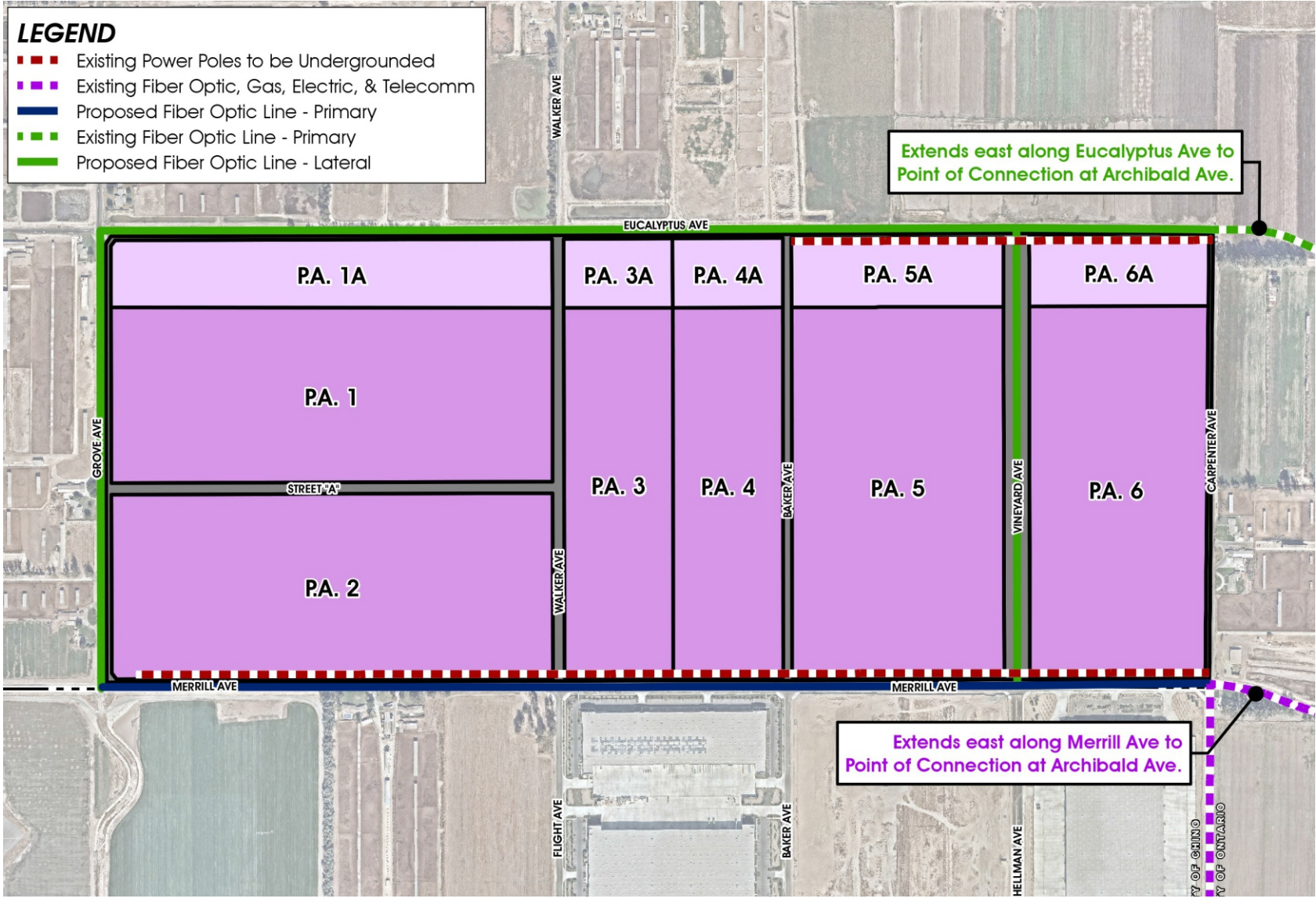


Figure 3.4-10
Dry Utilities Plan

The Specific Plan Fiber Optics Plan is illustrated at Figure 3.4-11. Fiber optic lines would be installed on- and off-site in accordance with the City of Ontario's Master Plan standards. Per the City of Ontario's Master Fiber Optic Plan, lines will be installed in Merrill Avenue between Grove Avenue and Carpenter Avenue, Grove Avenue abutting Planning Areas 1 and 2; in Eucalyptus Avenue from Grove Avenue to Carpenter Avenue; and in Vineyard Avenue abutting Planning Areas 5 and 6.

Backbone fiber optics components (conduits, hand holes, tracer wire, and fiber) will be placed underground within a duct and structure system to be installed in a joint trench within adjacent streets. Within the Specific Plan Area, in-tract fiber and conduit will be installed per the City's in-tract fiber optic design guidelines (see: https://www.ontarioca.gov/sites/default/files/Ontario-Files/Information-Technology/2014-12-16_in-tract_designguidelines.pdf).

Maintenance of the installed fiber optic system will be the responsibility of the City/Special District. Development of the Project requires installation of all fiber optic infrastructure and peripheral equipment necessary to service the Specific Plan as a stand-alone development.



LEGEND

- ■ ■ Existing Power Poles to be Undergrounded
- ■ ■ Existing Fiber Optic, Gas, Electric, & Telecomm
- Proposed Fiber Optic Line - Primary
- ■ ■ Existing Fiber Optic Line - Primary
- Proposed Fiber Optic Line - Lateral

Extends east along Eucalyptus Ave to Point of Connection at Archibald Ave.

Extends east along Merrill Ave to Point of Connection at Archibald Ave.



NOT TO SCALE
Source: T&B Planning, Inc.

3.4.3.6 Project Design Features

Design features proposed by the Applicant and incorporated in the Project would promote efficient use of energy and other resources, would further City conservation and sustainability goals and strategies, and would diminish the Project's potential environmental effects. In consultation with the Lead Agency, final designs of Project buildings, site plans, and improvements would incorporate the following:

- All Project buildings will be LEED Certified;
- Building and site designs will facilitate and incorporate use of renewable energy sources, including roofs structurally designed to support solar photovoltaic (PV) panels;
- Building and site designs will incorporate conduit and infrastructure for electric car chargers;
- Building and site designs will incorporate conduit and infrastructure for electric truck chargers;
- To minimize the potential for on-site truck idling, site plans will be designed to ensure adequate circulation and access for trucks;
- Truck trailer parking areas will be designed and configured to avoid vehicle stacking at the Project site access point and along adjacent streets;
- LED Lighting will be provided throughout the Project (interior and exterior);
- Project grading will be balanced, thereby minimizing potential requirements for truck conveyance of soil import/export;
- Project warehouse designs will provide 40-foot or higher interior clear heights, allowing for greater storage per square foot of building, reducing building footprints, and generally reducing construction material and energy demands;
- Site designs will incorporate pedestrian/bicycle/multi-use paths and supporting amenities;
- The Project Construction and Demolition Waste Management Plan will be designed and implemented to yield a minimum of 90 percent recycled/salvaged materials.

3.4.4 Specific Plan Development Regulations

The proposed Specific Plan Development Regulations address physical requirements and attributes of development within the Specific Plan area including, but not limited to: building/facility setbacks, lot coverage requirements, and maximum building heights. In instances where the Specific Plan is silent, applicable development regulations of the City of Ontario Municipal Code would apply. See also: Merrill Commerce Center Specific Plan, Chapter 5, *Development Regulations*.

3.4.5 Specific Plan Design Guidelines

The Specific Plan document proposes architectural and landscape Design Guidelines that would establish the quality and character of the built environment within the Specific Plan Area. More specifically, the proposed Design Guidelines would provide criteria for architecture, lighting, signage, and landscape design. In instances where the Specific Plan is silent, applicable design guidelines of the City of Ontario Municipal Code would apply. See also: Merrill Commerce Center Specific Plan, Chapter 6, *Design Guidelines*.

3.5 PROJECT OBJECTIVES

The primary goal of the Project is the development of the subject site with a productive mix of business park and industrial uses. Complementary Project Objectives include the following:

- Implement a Specific Plan development supporting business park and industrial uses providing a broad range of long-term employment opportunities.
- Implement business park and industrial uses providing a broad range of additional construction employment opportunities.
- Provide safe and convenient access for trucks in a manner that minimizes any potential disruption to residential areas.
- Provide business park and industrial uses near existing roadways and freeways to reduce traffic congestion and air emissions.

- Facilitate goods movement locally, regionally, nationally, and internationally.
- Provide land uses that are compatible with surrounding land uses and that would not conflict with the policies and environmental constraints identified in the Policy Plan.
- Support the Policy Plan vision for urbanization of the Ontario Ranch area of the City.
- Establish new development that would further the City’s near-term and long-range fiscal goals.
- Improve the regional jobs/housing balance.

3.6 DISCRETIONARY APPROVALS AND PERMITS

Anticipated discretionary actions, permits, and consultation(s) necessary to approve the Project are summarized below.

3.6.1 Discretionary Actions

CEQA Guidelines Section 15124 states in pertinent part that if “a public agency must make more than one decision on a project, all its decisions subject to CEQA should be listed...” Requested decisions, or City discretionary actions, necessary to realize the Merrill Commerce Center Specific Plan would include:

- Certification of the Merrill Commerce Center Specific Plan EIR;
- Approval of Policy Plan (General Plan) Amendment (Land Use);
- Adoption of the Merrill Commerce Center Specific Plan;
- Approval of Parcel Maps;
- Adoption of a Development Agreement; and

- Cancellation of the existing Williamson Act Contracts on APN 0218-261-35 (Contract #69-147, initiated in 1973); and APNs 1054-151-02, 1054-161-02, 1054-161-03, 1054-201-02 and 1054-351-02 (Contract #70-167, initiated in 1970).³

3.6.2 Consultation and Permits

CEQA Guidelines Section 15124 also states that environmental documentation should, to the extent known, list other permits or approvals required to implement the Project. Anticipated permits and consultation necessary to realize the Project would likely include, but would not be limited to, the following:

- Permitting by/through the Regional Water Quality Control Board (RWQCB) pursuant to requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit;
- Permitting by/through the South Coast Air Quality Management District (SCAQMD) for certain equipment or land uses that may be implemented within the Project area;
- Consultation with requesting Tribes as provided for under *AB 52, Gatto. Native Americans: California Environmental Quality Act*; and *SB 18, Burton. Traditional tribal cultural places*;
- Review and approval by the City for conformance with the Compatibility Plan for Chino Airport;
- Review and approval by the Federal Aviation Administration (FAA) for potential airspace obstruction(s) if any;
- CWA Section 404 authorization from the Army Corps of Engineers (Corps);

³ A notice of non-renewal dated September 14, 2017, and recorded, has initiated the termination process for Contract #70-167.

- Clean Water Act (CWA) Section 401 Water Quality Certification;
- California Department of Fish and Wildlife (CDFW) Section 1602 Streambed Alteration Agreement(s);
- CDFW consultation/coordination addressing protected species impact mitigation; and
- Various construction, grading, and encroachment permits from affected agencies allowing implementation of Project facilities including construction/modification of utilities systems and roadways.

4.0 ENVIRONMENTAL IMPACT ANALYSIS

4.0 ENVIRONMENTAL IMPACT ANALYSIS

This chapter of the EIR analyzes and describes the potential environmental impacts associated with the adoption and implementation of the Merrill Commerce Center Specific Plan (Project). The environmental impact analysis has been organized into a series of sections, each addressing a separate environmental topic. Environmental topics addressed in this EIR are presented in the following sections:

| <u>Section</u> | <u>Topic</u> |
|----------------|-------------------------------|
| 4.1 | Land Use and Planning |
| 4.2 | Transportation |
| 4.3 | Air Quality |
| 4.4 | Greenhouse Gas Emissions |
| 4.5 | Noise |
| 4.6 | Hazards/Hazardous Materials |
| 4.7 | Hydrology/Water Quality |
| 4.8 | Biological Resources |
| 4.9 | Geology and Soils |
| 4.10 | Cultural/Tribal Resources |
| 4.11 | Agricultural Resources |
| 4.12 | Utilities and Service Systems |
| 4.13 | Energy |
| 4.14 | Population and Housing |

Within each of the above topical Sections, the discussion is typically divided into subsections which: describe the “setting” or existing environmental conditions; identify regulations and policies, which through their observance typically resolve many

potential environmental concerns; identify thresholds of significance applicable to potential environmental effects of the Project; describe the significance of Project-related environmental effects in the context of applicable significance thresholds; and for impacts which are potentially significant or significant, recommend mitigation measures to eliminate or reduce their effects. In this latter regard, it is recognized that the intent of the California Environmental Quality Act (CEQA) is to focus on significant, or potentially significant adverse effects of the Project, and therefore, mitigation is proposed only for potential impacts of this magnitude.

As noted above, before potential impacts are evaluated, the standards or thresholds which will serve as the basis for judging the relative significance of impacts are presented. Often thresholds serve as a general guide or gauge for determining an impact's potential relative significance, rather than defining its absolute effects. Subsequent to identification of relevant significance thresholds, potential Project-related effects and impacts are identified and explained. If an impact is considered to be potentially significant, mitigation measures are proposed to avoid the impact, or reduce its effects to the extent feasible. In determining the potential significance of impacts, the adequacy of existing policies and regulations in addressing each impact is taken into consideration. At the conclusion of each discussion for a potentially significant impact, a determination is made as to whether the impact can be reduced to a less-than-significant level with the application of mitigation measures.

In the environmental analysis, the following terms are used to describe the potential effects of the Project:

- **Less-Than-Significant Impacts:** Minor changes or effects on the environment caused by the Project which do not meet or exceed the criteria, standards, or thresholds established to gauge significance are considered to be less-than-significant impacts. Less-than-significant impacts do not require mitigation. In some cases, these impacts may appear to be potentially significant. However, existing public policies, regulations, and procedures adequately address these

potential effects, thereby reducing them to a less-than-significant level, without the need for additional mitigation.

- **Potentially Significant Impacts:** Potentially significant impacts are defined as a substantial, or potentially substantial, adverse change in the environment. The *CEQA Guidelines* and various responsible agencies provide guidance for determining the significance of impacts. However, the determination of impact significance is ultimately based on the judgment of the lead agency. Similarly, the establishment of any criteria to be used in evaluating the significance of impacts is the responsibility of the lead agency. Wherever possible, mitigation is proposed in the EIR to avoid or reduce the magnitude of potentially significant impacts.
- **Significant Impacts:** Impacts identified in the EIR which cannot be mitigated below thresholds of significance through the application of feasible mitigation measures are categorized as “significant.”
- **Cumulative Impacts:** A discussion of cumulative impacts is provided in Section 5.0 of this environmental analysis. Cumulative impacts refer to the impacts of the Project as they are combined or interact with anticipated impacts of other vicinity projects and physical effects of projected ambient regional growth.

4.1 LAND USE AND PLANNING

4.1 LAND USE AND PLANNING

Abstract

This Section identifies and addresses potential impacts that may result from land use and planning decisions necessary to implement the proposed development. More specifically, the land use and planning analysis presented here examines whether the Project would:

- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.*

Additionally, as discussed in the EIR Initial Study (EIR Appendix A), the Project's potential impacts under the following topic were previously determined to be less-than-significant, and are not further substantively discussed here:

- Physically divide an established community.*

As supported by the analysis presented in this Section, potential land use and planning impacts of the Project would be less-than-significant.

4.1.1 INTRODUCTION

The Land Use and Planning Section of the EIR focuses on the Project's consistency with applicable land use plans, policies and regulations; and also evaluates the Project's compatibility with existing and proposed development in the vicinity. Discussions and analysis within this Section are based on and supported by the following documents and source information:

- The Ontario Plan (TOP), Policy Plan (General Plan), and TOP Final Environmental Impact Report (TOP Final EIR). These documents are available through the City of Ontario, or are accessible at: <http://www.ontarioplan.org/>;
- The City of Ontario Development Code, available through the City of Ontario, or accessible at: <https://www.ontarioca.gov/planning/documents/development-code>; and
- The proposed Merrill Commerce Center Specific Plan (Specific Plan, SP) included at EIR Appendix B.

4.1.2 SETTING

4.1.2.1 Project Overview and Location

The Merrill Commerce Center Specific Plan Project (Project, Specific Plan) proposes development and operation of Specific Plan Industrial and Business Park Land Uses on approximately 376.3 acres located in the City of Ontario, within San Bernardino County. The Specific Plan area is apportioned into approximately 292.8 acres of Industrial Land Use; approximately 55.1 acres of Business Park Land Use; and approximately 28.4 acres allocated for Circulation (vehicular and non-vehicular).

The Project would also implement off-site infrastructure (roads, potable water, recycled water, sanitary sewer, storm drains, and fiber optic lines) in support of the Project. Preliminary studies prepared for the Project indicate that an additional 113.3 acres of off-site areas could be disturbed during construction of off-site master plan infrastructure

improvements. Predominantly, off-site areas that would be affected by construction of infrastructure improvements comprise already-disturbed/developed rights-of-way and easements.

Detailed information regarding land uses and development that would be allowed under the Specific Plan is presented within the *Merrill Commerce Center Specific Plan* (T&B Planning, Inc.) September 29, 2020, EIR Appendix B. The Specific Plan document in total is incorporated by reference. Under the current Project Development Concept evaluated in this EIR, the Specific Plan area would be developed with the following uses:

- Industrial: Approximately 6,312,600 square feet of high-cube fulfillment center warehouse use, and approximately 701,400 square feet of high-cube cold storage warehouse use;
- Business Park: Approximately 1,441,000 square feet of mixed uses including merchant wholesale, professional services, professional office, warehouse/storage, and research and development.

Total Development: 8,455,000 square feet

Analyses within this EIR reflect the range and types of uses permitted or conditionally permitted under the Specific Plan Industrial and Business Park Land Use designations. Should future development proposals proposed within the Specific Plan area, or supporting infrastructure proposed as part of the Project differ substantially from the development concepts analyzed herein, the Lead Agency would comply with CEQA in consideration of those proposals.

It is specifically noted that any site plan concepts, building footprints, building sizes, and/or building orientations depicted in the EIR or supporting technical analyses are provided for illustrative purposes only. This EIR in all instances evaluates likely maximum impact scenarios. No site plans or building plans would be entitled under the EIR Project or as part of the Specific Plan approval.

The Project site¹ is located within the Ontario Ranch (formerly New Model Colony)² area of the City. More specifically, the Project site is located along Merrill Avenue, between Grove Avenue and Carpenter Avenue. Eucalyptus Avenue forms the northerly boundary of the Specific Plan area. Please refer to Figure 4.1-1, *Project Location*.

4.1.2.2 Existing Land Uses

Project site and vicinity land uses are denoted at Figure 4.1-2 and are summarized below.

Project Site Land Use

The Project site currently contains a dairy farm with interior unpaved roads, cattle stockades, support equipment for cattle and dairy farming, bio-retention basins located at the southern boundary, a trucking operation on the eastern portion, and appurtenant residences at various locations within the Project site.

The Project site is extensively disturbed and evidences environmental degradation due to historic and on-going agricultural and trucking uses. Such degradation includes, but is not limited to:

- Animal waste from the long-term dairy farm uses have potentially created methane gas, and soil contamination from nitrates and ammonia.
- Numerous automotive fluids, including several large above ground storage tanks (ASTs) on or near the on-site maintenance shop. These materials are used for maintaining and repairing farm equipment.

¹ The Project site is defined as the area encompassed by the Merrill Commerce Center Specific Plan (the Specific Plan area). The analysis presented in this EIR considers and addresses environmental impacts resulting from development of the Project site proper, and also evaluates impacts that would result from off-site activities or improvements necessary to implement and support the Project.

² Within these discussions, City documents referring to or citing the “New Model Colony” area have been revised to reference the “Ontario Ranch” area.



----- Project Site Boundary



NOT TO SCALE
Source: Google Earth; Applied Planning, Inc.

Figure 4.1-1
Project Location

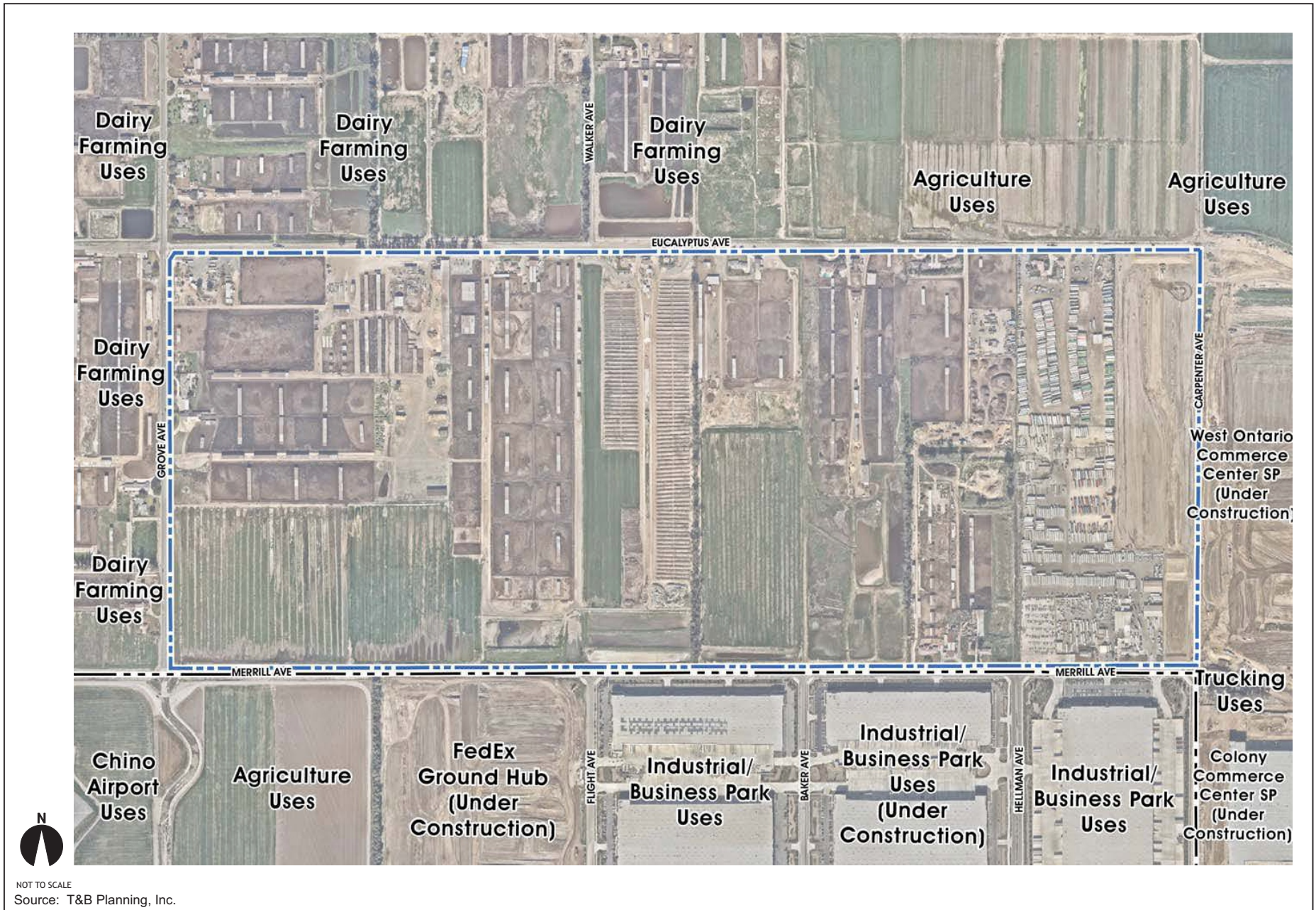


Figure 4.1-2
Existing Land Uses

- Additional ASTs used for truck and equipment refueling are located on-site.
- A scrap metal area containing drums, ASTs, farming equipment, and vehicles is located on the property.
- The property is located within the South Archibald Trichloroethylene (TCE) Plume. The 2,000-acre TCE Plume contains contaminated groundwater that underlies the Project site.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to the pastures for irrigation.
- Holding ponds for contaminated runoff from agricultural/dairy farm operations.
- General debris observed throughout the property, including vehicle equipment staging areas, used tires, concrete rubble piles, compressors, and generators may have the potential to impact on-site surficial soil.
- Presence of septic systems.

Vicinity Land Uses

Eucalyptus Avenue comprises the northerly Project site boundary. Northerly, across Eucalyptus Avenue, are dairy farming and agricultural land uses. Carpenter Avenue comprises the easterly Project site boundary. Easterly, across Carpenter Avenue, properties are designated for Specific Plan development (West Ontario Commerce Center Specific Plan, Parkside Specific Plan, and Colony Commerce Center Specific Plan. The Colony Commerce Center Specific Plan and the West Ontario Commerce Center Specific Plan are currently under construction. Merrill Avenue comprises the southerly Project site boundary. Merrill Avenue at this location is also the common City of Ontario/City of Chino municipal boundary. Southerly, across Merrill Avenue, are agricultural uses, and

industrial/business park land uses (existing and under construction) located in the City of Chino. Grove Avenue comprises the westerly Project site boundary. Westerly, across Grove Avenue, are dairy farming land uses. Chino Airport is located southwesterly of the Project site, within the City of Chino.

4.1.2.3 Existing Land Use Designations

Project Site Policy Plan Land Use Designations

The City of Ontario Policy Plan (General Plan) assigns land uses by general categories, and establishes various land use designations under each category. Existing Policy Plan Land Use designations for the Project site are: “Business Park” - 303.5 acres; “Office/Commercial” - 43.3 acres; and “General Commercial” - 18.3 acres. Descriptions of existing Policy Plan Land Use designations applicable to the Project site are presented at Table 4.1-1. Existing Policy Plan Land Use designations for the Project site are illustrated at Figure 4.1-3.

**Table 4.1-1
Project Site - Existing Land Use Designations**

| Land Use Designation | Maximum Allowable Intensity | Intent |
|-----------------------------------|------------------------------------|---|
| Business Park- 303.5 acres | 0.60 FAR | Employee-intensive office uses including corporate offices, technology centers, research and development, “clean” industry, light manufacturing, and supporting retail. |
| General Commercial- 18.3 acres | 0.40 FAR | Local and regional serving retail, personal service, entertainment, dining, office, tourist-serving, and related commercial uses. |
| Office/Commercial- 43.3 acres | 0.75 FAR | An intense mixture of regional serving retail, service, tourist-serving, professional office, entertainment, dining, and supporting services uses that capitalize on strategic locations in Ontario. This designation also includes professional offices including financial, legal, insurance, medical, and other similar uses in a neighborhood setting and/or as adaptive reuse. |

Source: Policy Plan Land Use Designation Maximum Allowable Intensities and Intent from Policy Plan Table LU-02 *Land Use Designations Summary Table* (see: <http://www.ontarioplan.org/wp-content/uploads/sites/4/2015/05/LU-02-Land-Use-Designations-Table-amended-March-2017.pdf>).

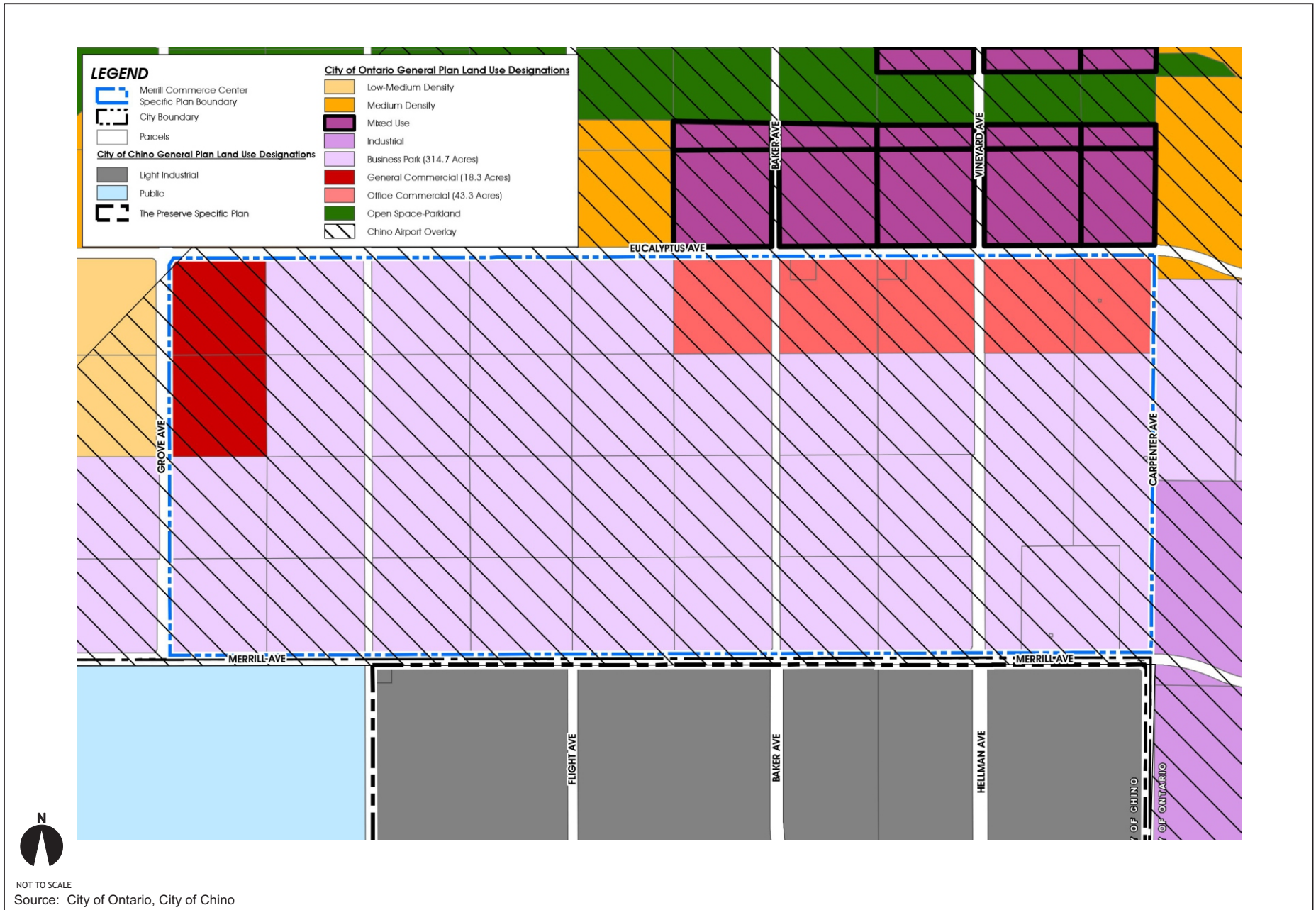


Figure 4.1-3
Existing Policy Plan Land Use Designations

Vicinity Land Use Designations

City of Ontario Policy Plan Land Use designations applicable to vicinity properties are: “Medium Density Residential,” “Low-Medium Density Residential,” “Mixed Use,” “Business Park,” and “Industrial.”

Southerly of the Project site across Merrill Avenue are properties located in the City of Chino. City of Chino General Plan Land Use designations for these properties are: “Public,” and “Light Industrial.”

Descriptions of Ontario Policy Plan Land Use designations applicable to vicinity properties are summarized at Table 4.1-2. Description of City of Chino General Plan Land Use designations for vicinity properties are also summarized. Existing Policy Plan Land Use designations and City of Chino General Plan Land Use designations applicable to vicinity properties are illustrated at previous Figure 4.1-3. The Project does not propose or require land use amendments that would affect Land Use designations of off-site properties.

**Table 4.1-2
Vicinity Properties - Land Use Designations**

| CITY OF ONTARIO | | |
|--------------------------------|-------------------------------------|---|
| Land Use Designation | Maximum Allowable Density/Intensity | Intent |
| Low-Medium Density Residential | >5.0–11.0 du/ac | Single/multi-family attached and detached residences, including small lot subdivisions, townhouses, and courtyard homes. |
| Medium Density Residential | >11.0–25.0 du/ac | Single/multi-family attached and detached residences including townhouses, stacked flats, courtyard homes, stacked flats, and small lot single-family subdivisions. |
| Business Park | 0.60 FAR | Employee-intensive office uses including corporate offices, technology centers, research and development, “clean” industry, light manufacturing, and supporting retail. |
| Industrial | 0.55 FAR | Variety of light industrial uses, including warehousing/distribution, assembly, light manufacturing, research and development, storage, repair facilities, and supporting retail and professional office uses. This designation also accommodates activities that could potentially generate impacts, such as noise, dust, and other nuisances. |

**Table 4.1-2
Vicinity Properties - Land Use Designations**

| | | |
|---|--|---|
| | | If office uses and/or multiple tenant uses are developed on parcels fronting on the Milliken, Haven, and Archibald corridors, a FAR of 0.60 may be used. |
| Ontario Ranch West Mixed Use Area | <ul style="list-style-type: none"> • >14.0 to 65.0 dwelling units per acre • 1.5 FAR for office uses • 1.0 FAR for retail uses • Subject to Specific Plan | The Ontario Ranch West Mixed Use Areas are envisioned as the southern activity centers of Ontario and the focus of the Ontario Ranch. These areas accommodate a vertical and horizontal mixture of commercial, office, entertainment, and residential uses in a pedestrian oriented atmosphere. It is envisioned that the major roads through these Mixed Use areas are couplets, which are a series of one-way streets that disperse traffic and allow reduced street widths, maximize the sense of community, and emphasize pedestrian accessibility. These Mixed Use areas are envisioned as low-rise (3-5 stories) with some mid-rise (5-10 stories) near the intersection of Euclid and Edison. See the Ontario Ranch Area Plan for more detail. |
| CITY OF CHINO | | |
| Land Use Designation | Maximum Allowable Density/Intensity | |
| Public (Preserve Specific Plan) | --- | The Public Facilities designation accommodates local and regional-serving public and quasi-public facilities and services, such as schools, libraries, places of worship, police and fire stations, and utility stations. |
| Light Industrial (Preserve Specific Plan) | 0.45 | The Light Industrial designation is intended to accommodate industrial uses that produce minimal traffic, noise, odors, or pollutants. Permitted land uses include light manufacturing, assembly and processing, and office. Permitted FAR is 0.45. |
| | | |

Sources: Policy Plan Land Use Designation Maximum Allowable Intensities and Intent from Policy Plan Table LU-02 *Land Use Designations Summary Table* (see: <http://www.ontarioplan.org/wp-content/uploads/sites/4/2015/05/LU-02-Land-Use-Designations-Table-amended-March-2017.pdf>).

City of Chino General Plan Land Use designations and descriptions from: City of Chino General Plan Land Use Element, pp. LU-18, LU-19 (see: <https://www.cityofchino.org/cms/One.aspx?portalId=10382662&pageId=11469788>; https://www.cityofchino.org/UserFiles/Servers/Server_10382578/File/City%20Hall/Departments/Community%20Development/Chino%20General%20Plan%20Map%20-%20Revised%20February%2013,%202020.pdf)

4.1.2.4 Zoning Designations

Zoning is the primary tool for implementing a General Plan. Zoning is a site-specific device designed to control the locations, densities, and intensities of various land uses. To prevent incompatible land use relationships, zoning ordinance(s) and accompanying map(s) designate different areas or zones for different types of land uses, and establish standards for development. These standards may specify requirements for lot sizes, lot

coverages, building heights, setbacks, parking, landscaping, and other development parameters. The California Government Code, Section 65860, requires City zoning designations to be consistent with the City General Plan. Existing zoning designations of the Project site and vicinity properties are presented at Figure 4.1-4.

Project Site

The existing Zoning designation of the Project site is “Specific Plan” (SP) with an “AG” (Agriculture) Overlay. City of Ontario Development Code (Development Code) descriptions of the Specific Plan Zoning District and AG Overlay are presented below:

SP (Specific Plan) Zoning District. The SP zoning district is hereby established to accommodate the adoption of Specific Plans pursuant to this Development Code. The SP zoning district is consistent with, and implements, all land use designation of the Policy Plan component of The Ontario Plan (Development Code, p. 5.01-6).

AG (Agriculture) Overlay District. The AG Overlay District is hereby established to accommodate the continuation of agricultural uses within the City, on an interim basis, until such time that development is slated to occur consistent with the Policy Plan component of The Ontario Plan and the underlying zoning district. Furthermore, it is the intent of this Overlay District to permit continued agricultural use of properties or to establish general agricultural uses, including dairies, which are appropriate for areas of concentrated agricultural uses. The AG Overlay District is consistent with, and implements, all land use designation of the Policy Plan component of The Ontario Plan (Development Code, p. 5.01-6).

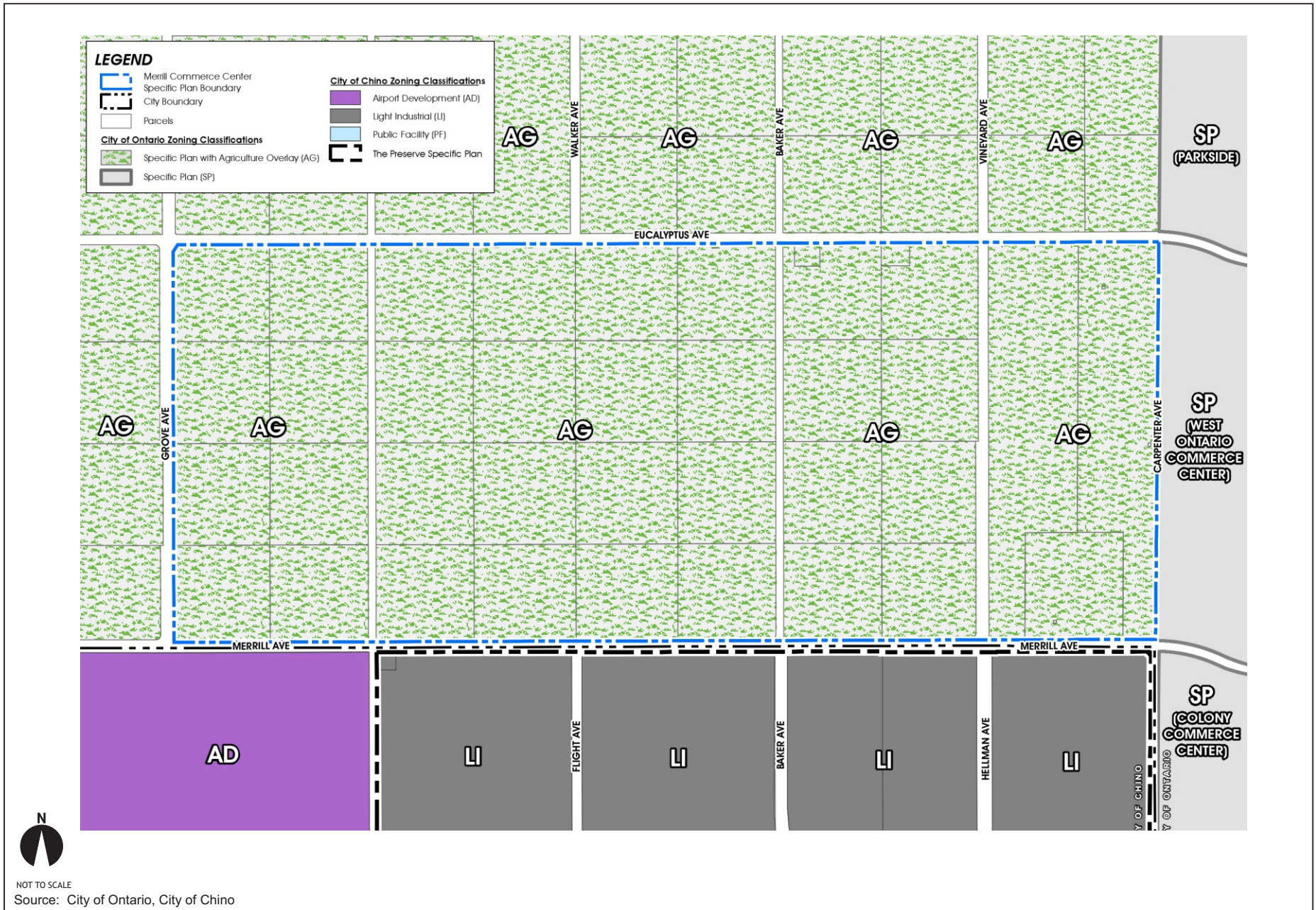


Figure 4.1-4
Existing Zoning Designations

Consistent with the site's SP Zoning designation, the Project would implement industrial and business park uses under the Merrill Commerce Center Specific Plan. If adopted by the City, the Merrill Commerce Center Specific Plan (Specific Plan) would comprise the Project site Zoning. Under the proposed Specific Plan, the site's existing AG Overlay District would no longer be appropriate and would be removed.

Vicinity Properties Zoning Designations

Development of City of Ontario properties is regulated under the specific Zone Districts as detailed within the City of Ontario Development Code. Similarly, development of City of Chino properties is regulated under the specific Zone Districts as detailed within the City of Chino Zoning Code. The Project does not propose or require land use amendments that would affect existing Zoning designations of off-site properties. Zoning designations applicable to properties adjacent to the Project site are summarized below.

City of Ontario

SP Zoning with Agriculture Overlay. Properties to the north west of the Project site are designated SP Zoning with Agriculture Overlay. Please refer to previous descriptions of these Zoning designations.

West Ontario Commerce Center Specific Plan. The West Ontario Commerce Center Specific Plan exists easterly of the Project site across Carpenter Avenue. Development within the West Ontario Commerce Center Specific Plan area is regulated by the West Ontario Commerce Center Specific Plan as approved by the City of Ontario. The West Ontario Commerce Center Specific Plan provides for development of Business Park and Industrial Land Uses within an approximately 119-acre site. Please refer also to: <https://www.ontarioca.gov/Planning/SpecificPlans>.

Colony Commerce Center West Specific Plan. The Colony Commerce Center West Specific Plan exists southeasterly of the Project site across Carpenter Avenue. Development within the Colony Commerce Center West Specific Plan area is regulated by the Colony Commerce Center West Specific Plan as approved by the City of Ontario. The Colony Commerce Center West Specific Plan provides for development of various

Industrial Land Uses including wholesale and distribution, light manufacturing and business uses within an approximately 123.17-acre site. Please refer also to: <https://www.ontarioca.gov/Planning/SpecificPlans>.

Parkside Specific Plan. The Parkside Specific Plan exists northeasterly of the Project site across Carpenter Avenue. Development within the Parkside Specific Plan area is regulated by the Parkside Specific Plan as approved by the City of Ontario. The Parkside Specific Plan comprises approximately 251 acres and provides for various Single-Family and Multi-Family Residential uses, and supporting Commercial and Park land uses. Easterly adjacent to the Project site, across Carpenter Avenue, Parkside Specific Plan land uses are designated “Multi-Family Attached” and “Park.” Please refer also to: <https://www.ontarioca.gov/Planning/SpecificPlans>.

City of Chino Zoning Designations

Southerly of the Project site, across Merrill Avenue are properties located in the City of Chino. City of Chino Zoning for certain of these properties is established by the Preserve Specific Plan. The Preserve Specific Plan comprises approximately 5,226 acres and provides for various Residential, Business, Open Space, and Other land uses. Southerly adjacent to the Project site, across Merrill Avenue, Preserve Specific Plan land uses are designated “Light Industrial” and “Public Facilities.” Please refer also to: https://www.cityofchino.org/city_hall/departments/community_development/planning/plans/the_preserve.

Westerly of The Preserve Specific Plan, and south/southwesterly of the Project site, City of Chino zoning is “Airport Development.” The purpose of the Airport Development (AD) district is to provide areas for the operation of airport and aviation facilities, services and administrative uses, as well as incidental office uses. The AD district also provides areas for air freight handling facilities, aircraft hangars and public transportation and related facilities, including aircraft fuel and supply services. Please refer also to: Chino, California - Code of Ordinances Title 20 - Zoning Chapter 20.07 - Industrial Zoning Districts 20.07.020 - District Purposes.

4.1.2.5 Chino Airport Overlay

The City of Ontario is currently developing a Compatibility Plan for Chino Airport (Compatibility Plan) that relies on procedures and requirements outlined in *California Airport Land Use Planning Handbook* (State of California Department of Transportation, Division of Aeronautics) October 2011 (*Handbook*). As provided for in the *Handbook* “alternative process” the City functions as the Designated Agency in formulating airport land use compatibility plans for City properties. The Compatibility Plan is based on the *Handbook Generic Safety Zones for General Aviation Airports*.

See also: <https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf>).

The City anticipates adoption of a Draft Chino Airport Compatibility Plan in late 2020 – early 2021. Final site plans and development plans within the Project site would be subject to, and would be required to comply with, applicable standards and requirements of the Compatibility Plan as adopted by the City. Please refer also to related discussions presented at EIR Section 4.6, *Hazards/Hazardous Materials*.

4.1.3 LAND USE PLANS, POLICIES, AND REGULATIONS

4.1.3.1 Southern California Association of Governments (SCAG) 2016 – 2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law.

In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the region’s MPO, SCAG cooperates

with the Southern California Air Quality Management District (SCAQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. The Project’s consistency with the applicable RTP/SCS goals is summarized subsequently within this Section at Table 4.1-6.

4.1.3.2 Local Planning

The City of Ontario Policy Plan [General Plan] Land Use Goals, Objectives, Policies and Actions promote a pattern of orderly and compatible land uses within the City. In support of the Policy Plan, the City Development Code regulates site and use-specific development within the City. In the case of the Project, proposed land uses and development actions are also subject to requirements of the proposed Merrill Commerce Center Specific Plan document. In many instances, Project compliance with applicable provisions of the City of Ontario Policy Plan, Development Code, and proposed Merrill Commerce Center Specific Plan would avoid potential land use and planning impacts, or would reduce those potential impacts to levels that would be less-than-significant.

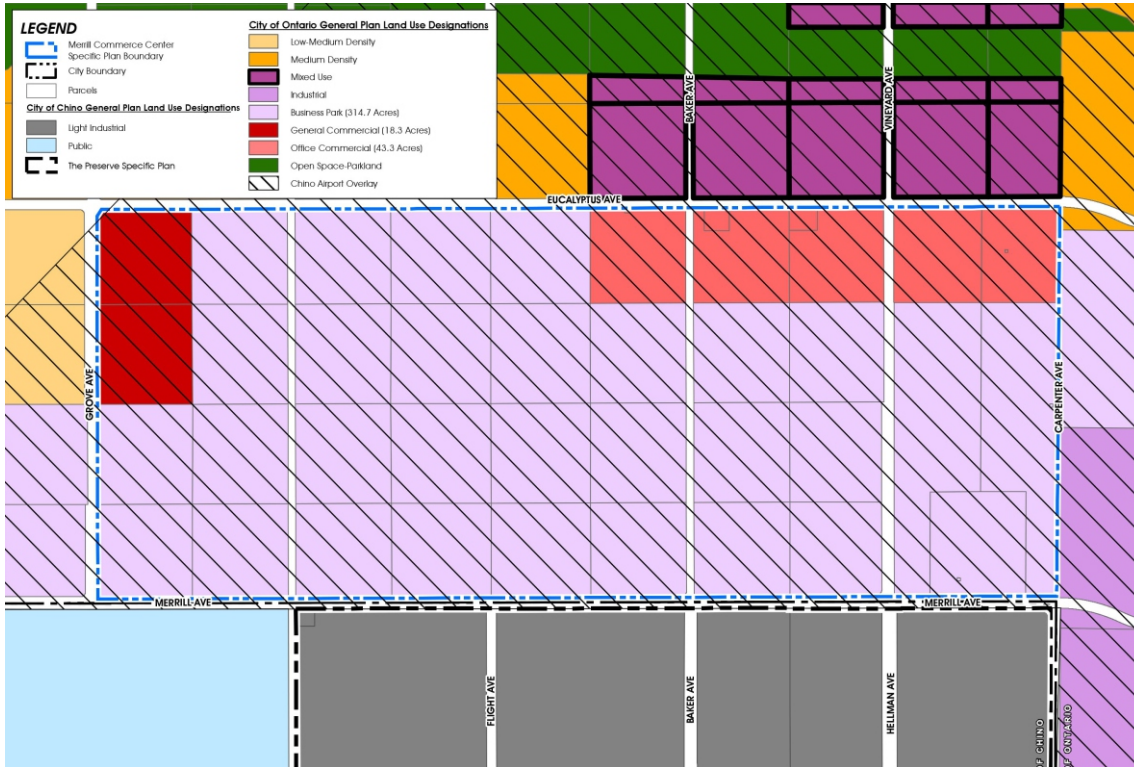
Comparison of Existing and Proposed Policy Land Use Designations

Existing Policy Plan Land Use designations for the Project site are: “Business Park” - 303.5 acres; “Office/Commercial” - 43.3 acres; and “General Commercial” - 18.3 acres. To accommodate land uses and development concepts proposed by the Project, the Applicant proposes to amend the current Policy Plan Land Use designations for the Project site. Existing and proposed Policy Plan Land Use designations for the Project site are summarized at Table 4.1-3. Existing and proposed Policy Plan Land Use designations are illustrated at Figure 4.1-5.

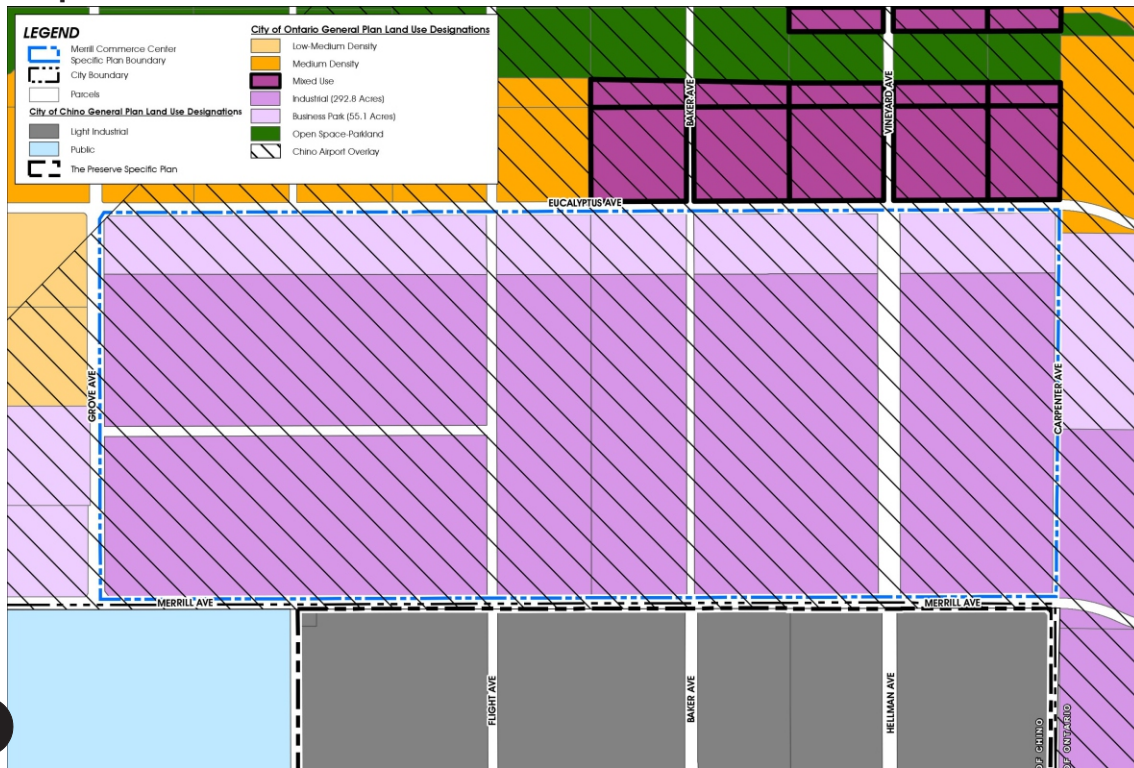
**Table 4.1-3
Existing and Proposed Policy Plan Land Use Designations**

| Existing | Proposed |
|---------------------------------|----------------------------|
| Business Park - 303.5 acres | Business Park - 55.1 acres |
| Office Commercial - 43.3 acres | Industrial - 292.8 acres |
| General Commercial - 18.3 acres | Circulation - 28.4 acres |

Existing:



Proposed:



NOT TO SCALE

Source: City of Ontario, City of Chino

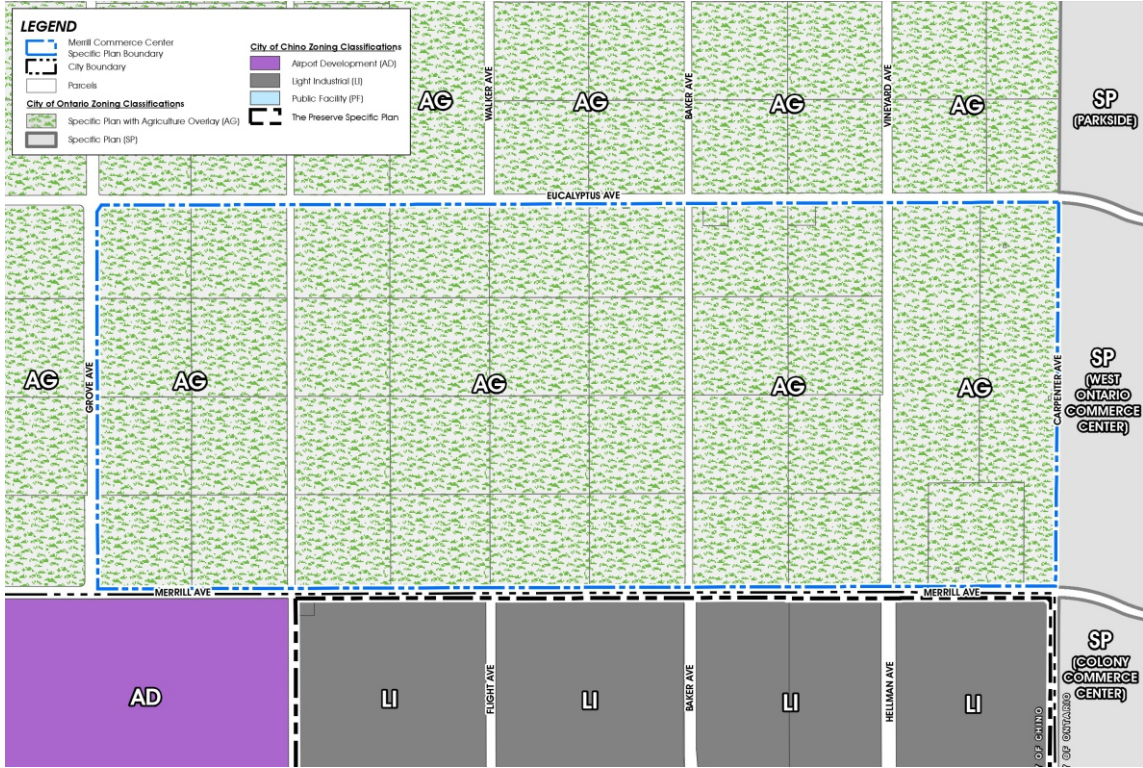
The Policy Plan Land Use Element establishes a plan for land uses within the City and directs the general character and intensities of development within the City boundaries. All proposed development projects are evaluated for consistency with the intent and purpose of the applicable Policy Plan Land Use designation(s) and related Policy Plan Goals and Policies. An assessment of Project support of, or consistency with, applicable Policy Plan Goals and Policies is presented subsequently at Section 4.1.5, *Potential Impacts and Mitigation Measures*.

4.1.3.3 Comparison of Existing and Proposed Zoning Designations

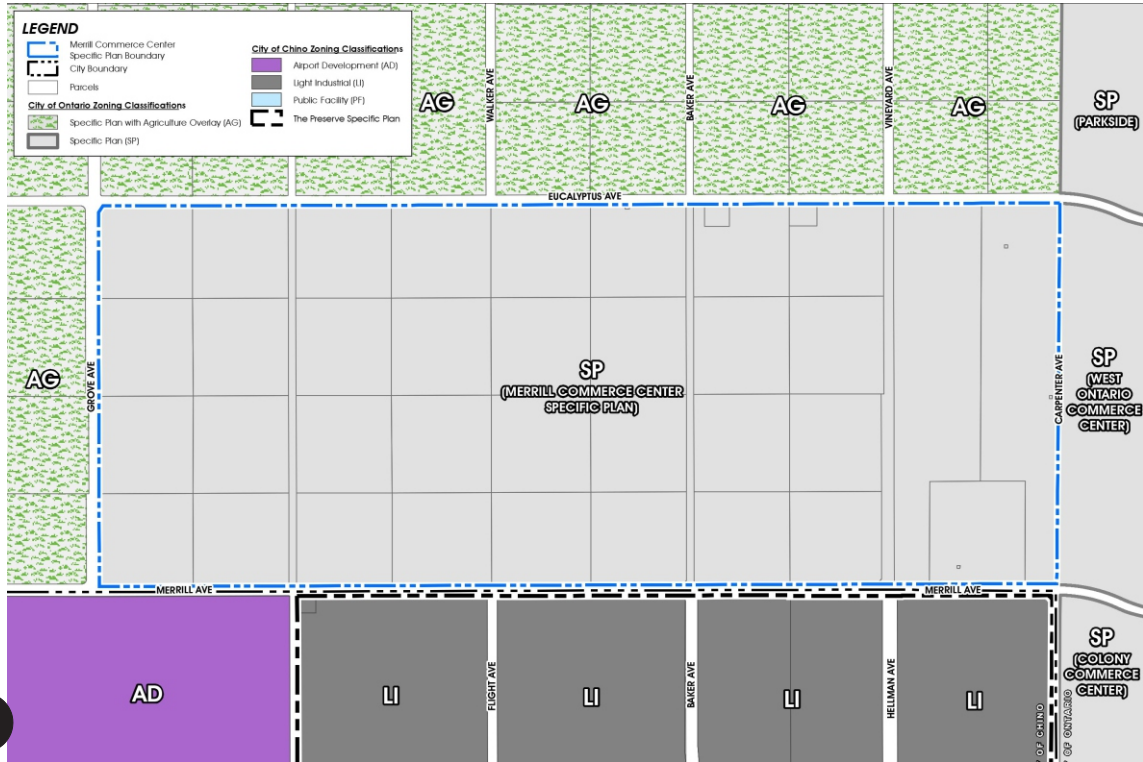
Existing Zoning of the Project site is Specific Plan with an Agricultural Overlay. The Specific Plan Zoning district accommodates the adoption of Specific Plans pursuant to the City Development Code. Consistent with the provisions of the Project site's current Specific Plan Zoning, the Project would be implemented under the provisions and requirements of a Specific Plan (the proposed Merrill Commerce Center Specific Plan). If adopted by the City, the Specific Plan would become the effective zoning for the subject site, and would regulate all development within the site. Where the Specific Plan is silent, regulations and requirements of the City Development Code would prevail. Existing and proposed Zoning designations are illustrated at Figure 4.1-6.

The site's current Agricultural Overlay is intended to accommodate the continuation of agricultural uses within the City, on an interim basis, until such time that development is slated to occur consistent with the Policy Plan and the underlying Specific Plan zoning district. Because the Project would implement a Specific Plan development that would be consistent with the Policy Plan as amended under the Project, the Project would have no impact on agricultural zoning designations. If the proposed Specific Plan is approved by the City, the site's current Agricultural Overlay designation would no longer be appropriate and would be removed.

Existing:



Proposed:



NOT TO SCALE

Source: City of Ontario, City of Chino

Project Land Use Concept

The Project Specific Plan Land Use Concept is presented at Figure 4.1-7, and includes the following land use designations/descriptions: “Industrial”, “Business Park,” and “Circulation.” The Specific Plan Land Uses are described below.

Industrial

Typical allowed uses within the Specific Plan Industrial Land Use would include: general light industrial, manufacturing, warehouse/distribution, and e-commerce fulfillment centers.³ Please refer to Specific Plan Chapter 5, *Development Regulations*, for a list of permitted uses within the Specific Plan Industrial Land Use designation. Specific Plan Chapter 6, *Design Guidelines*, provides design criteria for all development proposals within the Specific Plan area. Criteria are established for architecture, lighting, energy efficiency, signage, and landscape design. The City would review all development proposals within the Specific Plan Industrial Land Use to ensure conformance with applicable provisions of the Specific Plan.

Business Park

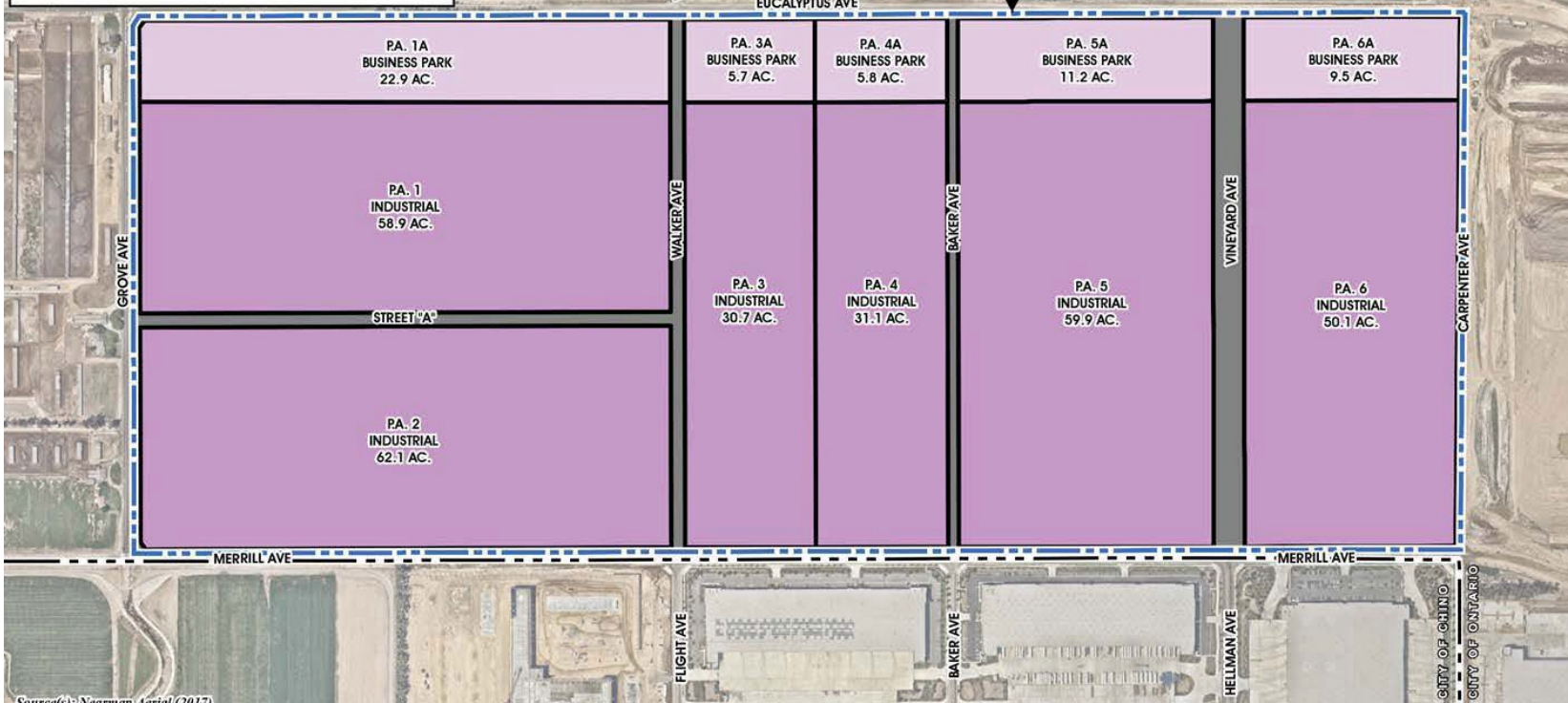
Typical allowed uses within the Specific Plan Business Park Land Use would include: offices, technology centers, research and development, enterprise, and light manufacturing. Please refer to Specific Plan Chapter 5, *Development Regulations*, for a list of permitted uses within the Specific Plan Business Park Land Use designation. Specific Plan Chapter 6, *Design Guidelines*, provides design criteria for all development proposals within the Specific Plan area. Criteria are established for architecture, lighting, energy efficiency, signage, and landscape design. The City would review all development proposals within the Specific Plan Business Park Land Use to ensure conformance with applicable provisions of the Specific Plan.

³ The analysis presented in this EIR assumes that the Specific Plan Industrial Land uses would be developed with up to 7,014,000 square feet of high-cube fulfillment center warehouses. This Industrial development scenario is considered to generate the likely maximum potential environmental impacts related to traffic, air quality, noise, and greenhouse gas emissions. As development proposals within the Specific Plan are further defined and are formalized, the City would evaluate such development to ensure that potential impacts would not be substantially greater than or different than impacts evaluated in this EIR.

| LAND USE PLAN STATISTICAL SUMMARY | | | | |
|--|----------------------|--------------------|-------------|-------------------------------------|
| PLANNING AREA | LAND USE DESIGNATION | ACRES ¹ | FAR | BUILDING SQ. FOOTAGE ^{2,3} |
| Industrial | | | | |
| 1 | Industrial | 58.9 | 0.55 | 1,411,000 SF |
| 2 | Industrial | 62.1 | | 1,488,000 SF |
| 3 | Industrial | 30.7 | | 735,000 SF |
| 4 | Industrial | 31.1 | | 745,000 SF |
| 5 | Industrial | 59.9 | | 1,435,000 SF |
| 6 | Industrial | 50.1 | | 1,200,000 SF |
| Total Industrial Acreage and Maximum Building SF | | 292.8 | 0.55 | 7,014,000 SF |
| Business Park | | | | |
| 1A | Business Park | 22.9 | 0.60 | 598,000 SF |
| 3A | Business Park | 5.7 | | 150,000 SF |
| 4A | Business Park | 5.8 | | 152,000 SF |
| 5A | Business Park | 11.2 | | 293,000 SF |
| 6A | Business Park | 9.5 | | 248,000 SF |
| Total Business Park Acreage and Maximum Building SF | | 55.1 | | 0.60 |
| TOTALS | | 376.3 AC | | 8,455,000 SF |

Notes:

1. Acreages are approximate and subject to survey verification.
2. Building square footage calculated by multiplying the total acreage of each planning area by the anticipated floor area ratio (FAR) for the respective land use designation (FAR of 0.55 is applicable to the Industrial land use designation and FAR of 0.60 is applicable to the Business Park land use designation).
3. Building square footages per planning area are approximate. Maximum building square footages indicated for each land use shall not be exceeded.
4. Land Use Plan is for conceptual purposes only.



MERRILL COMMERCE CENTER



Source(s): Nearmap Aerial (2017)

NOT TO SCALE
Source: T&B Planning, Inc.

Figure 4.1-7
Land Use Plan

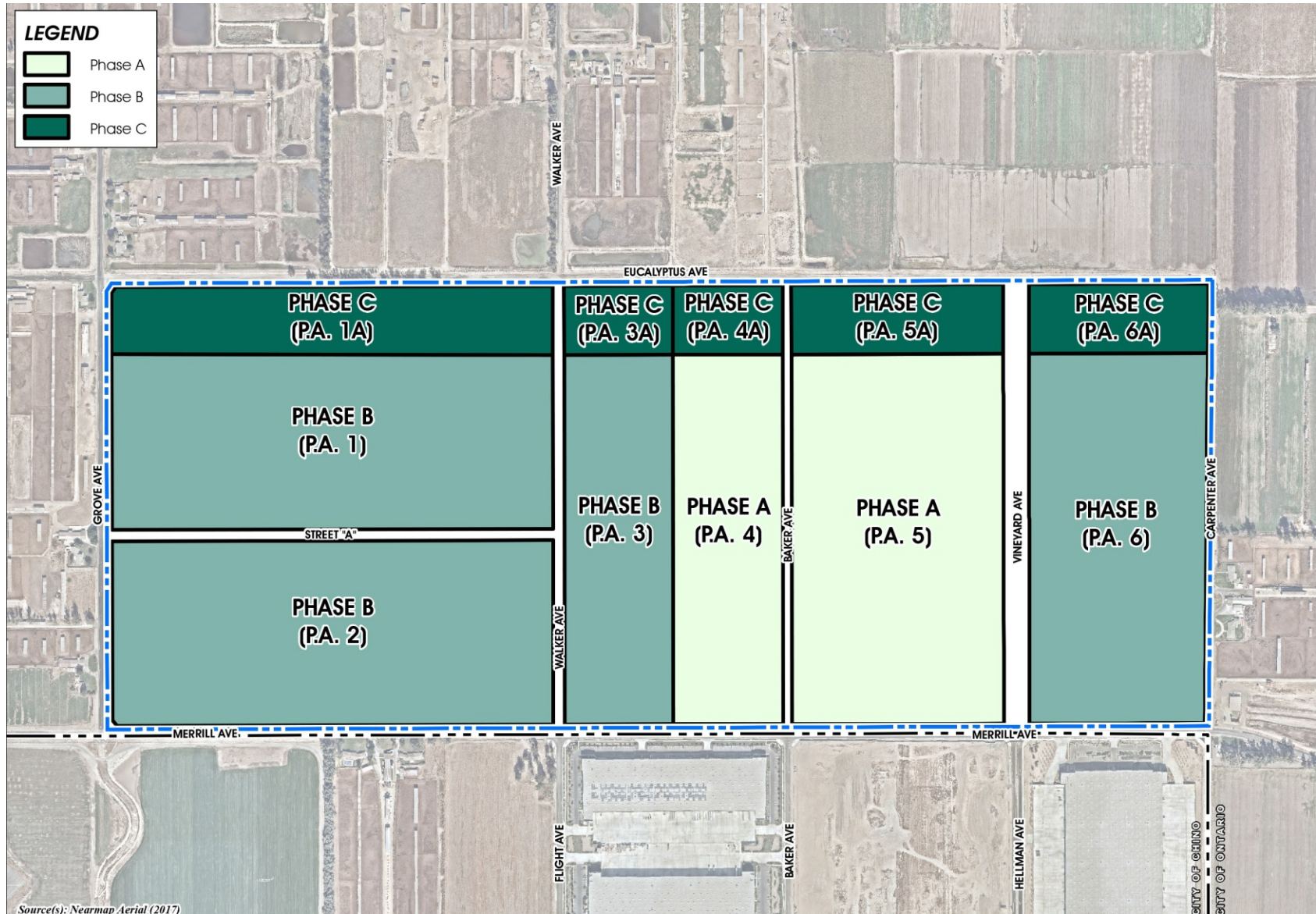
Circulation

Areas designated for “Circulation” would accommodate internal roadways and non-vehicular access.

Phasing

The Specific Plan is anticipated to be implemented in 3 Phases – “A,” “B,” and “C” as illustrated at Figure 4.1-8, *Phasing Concept*. Phase A is anticipated to be completed by 2022, Phase B by 2025, and Phase C by 2026. Development may occur other than per the expected Phasing sequence, provided that required supporting infrastructure and public services are available at the time of development. Project phasing and development sequencing would ultimately respond to market demands and would be contingent on availability of supporting infrastructure.

Detailed descriptions of circulation system, domestic water service, sanitary sewer service, recycled water service, storm water management system, and dry utilities needed to serve the Project Phases and Planning areas are described at Specific Plan Chapter 4, *Infrastructure Plan*.



LEGEND

- Phase A
- Phase B
- Phase C



NOT TO SCALE
 Source: T&B Planning, Inc.

Figure 4.1-8
 Phasing Concept

4.1.4 STANDARDS OF SIGNIFICANCE

Appendix G of the California Environmental Quality Act (CEQA) Guidelines, as utilized by the City of Ontario, indicates a Project will normally have a potentially significant effect related to land use and planning if it would:

- Physically divide an established community; or
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.1.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.1.5.1 Introduction

The following discussions focus on those areas where it has been determined that the Project may result in potentially significant land use and planning impacts, based on the previous discussions included within this Section and analysis presented within the EIR Initial Study (EIR Appendix A). As discussed within the Initial Study, the Project would not physically divide an established community. This potential impact is therefore not substantively discussed further within this Section. Please refer also to Initial Study Checklist Item XI. *Land Use and Planning*.

4.1.5.2 Impact Statements

Potential Impact: *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.*

Impact Analysis: Land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating environmental effects are established under the City of Ontario Policy Plan and the SCAG 2016 – 2040 RTP/SCS. Project Consistency with applicable provisions of the City of Ontario Policy Plan and SCAG 2016 – 2040 RTP/SCS are presented below.

City of Ontario Policy Plan

Consistency of the Project with applicable Policy Plan Land Use Element Goals and Policies that directly or indirectly address avoidance or mitigation of environmental effects is presented at Table 4.1-4. Please refer also to other EIR Sections for discussions of Goals/Policies consistency issues concerning topics other than Land Use.

Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis

| Goals/Policies | | Remarks |
|---|---|---|
| <i>LU1 Balance</i> | | |
| <p>Goal LU1 A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.</p> | | |
| Policies | | Remarks |
| LU1-1 | <p><i>Strategic Growth.</i> We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, and foster the development of transit.</p> | <p>Policy LU1-1 acts to avoid or reduce environmental impacts by minimizing requirements to construct new infrastructure, and by promoting use of transit, thereby generally reducing vehicle miles traveled (VMT) within the region. This Policy reduces resources consumption, transportation system impacts, air pollutant emissions impacts, and GHG emissions impacts.</p> <p><i>Consistent:</i> The proposed Merrill Commerce Center Specific Plan includes a mixture of Industrial and Business Park uses on an under-utilized property surrounded by developed or developing urban land uses. Development intensities and land use configurations realized under the Specific Plan promote the highest and best use of the subject site.</p> <p>Location of the Project takes advantage of existing access provided by the City’s roadway network. The Project would also implement those near-term access and roadway improvements the City considers necessary to support current and future area traffic volumes (please refer to EIR Section 3.0, <i>Project Description</i>, 3.4.3.4, <i>Access and Circulation</i>). The City would also collect Project Development Impact Fees (DIF) and Fair Share fees that would be assigned to roadway improvements necessary to ensure long-term adequacy of the area transportation system.</p> <p>Further, the Project would utilize and upgrade, as needed, other utility infrastructure systems. Development plans, development standards and design guidelines implemented pursuant to the proposed Merrill Commerce Center Specific Plan would establish a Project identity differentiated from, but compatible with, adjacent land uses. On this basis, the Project is consistent with Policy LU1-1.</p> |

**Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis**

| Goals/Policies | | Remarks |
|----------------|---|---|
| LU1-2 | <p><i>Sustainable Community Strategy.</i></p> <p>We integrate state, regional and local Sustainable Community/Smart Growth principles into the development and entitlement process.</p> | <p>Policy LU1-2 promotes conservation and sustainability, with correlating reductions in: energy consumption and resources consumption generally, VMT, transportation impacts, air pollutant emissions impacts, and GHG emissions impacts.</p> <p><i>Consistent:</i> Sustainability/conservation attributes of the Project are discussed in detail in the <i>Merrill Commerce Center Specific Plan</i> (EIR Appendix B) and are summarized below.</p> <p>Pursuant to the Specific Plan, roofs of the Project Industrial buildings would will be structurally designed to support solar panels. Additionally, the Specific Plan Design Guidelines encourage all new construction to utilize design features, fixtures, appliances, and heating and cooling controls to conserve energy and water. Further, the Specific Plan encourages non-motorized circulation by employees and visitors via its provision of an integrated network of sidewalks, bikeways, and trails. Facilitating use of these alternative transportation modes may decrease dependence on personal automobiles with related decreases in energy consumption and vehicular emissions.</p> <p>The plant palette for the Project incorporates water-efficient/drought tolerant species native to Southern California or naturalized to the arid Southern California climate. Use of turf will be minimized throughout the Specific Plan area. In this manner, the Project landscape concept would provide for efficient use of water resources. Further, “purple pipe” landscape irrigation systems would be implemented throughout the Specific Plan area, and only recycled/reclaimed water would be used for landscape irrigation or other non-potable purposes, thereby reducing demands on potable water resources.</p> <p>Additionally, as presented at EIR Section 3.0, <i>Project Description</i>, 3.4.3.6, <i>Project Design Features</i>, the Project would incorporate the following energy efficiency, energy conservation, and sustainability measures:</p> <ul style="list-style-type: none"> • All Project buildings will be LEED Certified; • Building and site designs will facilitate and incorporate use of renewable energy sources, including roofs that are structurally designed to support solar photovoltaic (PV) panels; • Building and site designs will incorporate conduit and infrastructure for electric car chargers; • Building and site designs will incorporate conduit and infrastructure for electric truck chargers; • To minimize the potential for on-site truck idling, site plans will be designed to ensure adequate circulation and access for trucks; |

**Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis**

| Goals/Policies | | Remarks |
|----------------|--|--|
| | | <ul style="list-style-type: none"> • Truck trailer parking areas will be designed and configured to avoid vehicle stacking at the Project site access point and along adjacent streets; • LED Lighting will be provided throughout the Project (interior and exterior); • Project grading will be balanced, thereby minimizing potential requirements for truck conveyance of soil import/export; • Project warehouse designs will provide 40-foot or higher interior clear heights, allowing for greater storage per square foot of building, reducing building footprints, and generally reducing construction material and energy demands; • Site designs will incorporate pedestrian/bicycle/multi-use paths and supporting amenities; • The Project Construction and Demolition Waste Management Plan will be designed and implemented to yield a minimum of 90 percent recycled/salvaged materials. <p>The Project also supports sustainability and growth attributes reflected in Goals of the 2016 – 2040 SCAG RTP/SCS. Please refer to Table 4.1-6.</p> <p>Based on the preceding, the Project is consistent with Policy LU1-2.</p> |
| LU1-3 | <p><i>Adequate Capacity.</i> We require adequate infrastructure and services for all development.</p> | <p>Policy LU1-3 reduces utilities/infrastructure and public services impacts.</p> <p><i>Consistent:</i> The Project Applicant would construct, or would otherwise ensure to the satisfaction of the Lead Agency, those infrastructure improvements and service enhancements necessary to meet the demands of the Project. As substantiated in this EIR, infrastructure and service demands of the Project can be satisfied without adverse impacts to existing or anticipated customers within affected service areas. Please refer also to EIR Section 4.12, <i>Utilities and Service Systems</i>. On this basis, the Project is consistent with Policy LU1-3.</p> |
| LU1-4 | <p><i>Mobility.</i> We require development and urban design, where appropriate, that reduces reliance on the automobile and capitalizes on multi-modal transportation opportunities.</p> | <p>Policy LU1-4 reduces VMT, transportation system impacts; and vehicular-source air pollutant emissions impact, GHG emissions impacts, and noise impacts.</p> <p><i>Consistent:</i> Access is provided to the Project site by local and regional transportation facilities. Intensified development of the Project site in combination with existing and proposed proximate urban development would focus the transit ridership base, thereby supporting existing and future transit opportunities. The Project incorporates bicycle and pedestrian amenities that facilitate non-motorized transportation modes. Based on the preceding, the Project is consistent with Policy LU1-4.</p> |

Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis

| Goals/Policies | | Remarks |
|--|--|--|
| LU1-5 | <i>Jobs-Housing Balance.</i> We coordinate land use, infrastructure, and transportation planning and analysis with regional, county and other local agencies to further regional and sub-regional goals for jobs-housing balance. | Policy LU1-5 reduces VMT, transportation system impacts; and vehicular-source air pollutant emissions impact, GHG emissions impacts, and noise impacts. <i>Consistent:</i> Via the EIR process, the City has coordinated Project land uses, infrastructure, and transportation planning and analysis with potentially affected regional, county, and local agencies. Employment opportunities created by the Project would improve the City's jobs/housing balance. Project land uses and supporting improvements would not interfere with or obstruct regional and/or sub-regional goals addressing jobs-housing balance. On this basis, the Project is consistent with Policy LU1-5. |
| LU1-6 | <i>Complete Community.</i> We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario. | Policy LU1-6 indirectly minimizes potentially adverse environmental impacts by promoting diverse compatible land uses, contributing to a sustainable community. <i>Consistent:</i> The Project proposes Industrial and Business Park Land Uses that would expand and diversify available employment opportunities. Please refer also to the <i>Merrill Commerce Center Specific Plan</i> (EIR Appendix B). On this basis, the Project is consistent with Policy LU1-6. |
| LU1-7 | <i>Revenues and Costs.</i> We require future amendments to our Land Use Plan to be accompanied by analyses of fiscal impacts. | Policy LU1-7 indirectly minimizes potentially adverse environmental impacts by ensuring fiscally responsible development, acting to minimize the potential for development proposals to cause or contribute to blight conditions. <i>Consistent:</i> An Economic/Fiscal Impact Analysis has been prepared for the Project. Please contact the City for further information. On this basis, the Project is consistent with Policy LU1-7. |
| LU2 Compatibility | | |
| Goal LU2 Compatibility between a wide range of uses. | | |
| Policies | | Remarks |
| LU2-1 | <i>Land Use Decisions.</i> We minimize adverse impacts on adjacent properties when considering land use and zoning requests. | Policy LU1-5 minimizes potential land use conflicts that could result in potentially adverse environmental impacts. <i>Consistent:</i> The Specific Plan configuration and orientation of land uses combined with integral Development Standards and Design Guidelines act to preclude or minimize potential adverse impacts affecting adjacent properties. The Project is therefore consistent with Policy LU2-1. |

**Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis**

| Goals/Policies | | Remarks |
|----------------|--|---|
| LU2-2 | <i>Buffers.</i> We require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur. | Consistent: Please refer to Remarks at Policy LU2-1. |
| LU2-3 | <i>Hazardous Uses.</i> We regulate the development of industrial and similar uses that use, store, produce or transport toxic substances, air emissions, other pollutants or hazardous materials. | <p>Policy LU2-3 reduces hazards/hazardous materials impacts and hazardous air pollutant emissions impacts.</p> <p>Consistent: The Project does not propose or require uses whose primary function is to store, produce, or transport toxic substances or other hazardous materials. Routine use of hazardous or potentially hazardous materials within the Specific Plan area would be subject to extensive local, regional, and federal regulatory requirements, and would not result in or cause potentially significant environmental impacts. Mitigation incorporated in this EIR reduces impacts associated with pre-existing hazards/hazardous materials conditions to levels that would be less-than-significant. Additionally, development of the Project would eliminate existing hazardous or potentially hazardous conditions affecting the Project site, including the following:</p> <ul style="list-style-type: none"> • Animal waste from the long-term dairy farm uses have potentially created methane gas, and soil contamination from nitrates and ammonia. • Numerous automotive fluids, including several large above ground storage tanks (ASTs) on or near the on-site maintenance shop. These materials are used for maintaining and repairing farm equipment. • Additional ASTs used for truck and equipment refueling are located on-site. • A scrap metal area containing drums, ASTs, farming equipment, and vehicles is located on the property. • Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to the pastures for irrigation. • Holding ponds for contaminated runoff from agricultural/dairy farm operations. Discharge from these ponds to surrounding areas; and potential infiltration of contaminated runoff to underlying groundwater. • General debris observed throughout the property, including vehicle equipment staging areas, used tires, concrete rubble piles, compressors, and generators may have the potential to impact on-site surficial soil. • Presence of septic systems. <p>Please refer also to EIR Section 4.6, <i>Hazards/Hazardous Materials</i>. Based on the preceding, the Project is consistent with Policy LU2-3.</p> |

Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis

| Goals/Policies | | Remarks |
|----------------|--|---|
| LU2-4 | <i>Regulation of Nuisances.</i> We regulate the location, concentration and operations of potential nuisances. | Policy LU2-4 reduces nuisance environmental impacts. While not considered significant of themselves, nuisance impacts could contribute to already adverse environmental conditions, or could cumulatively result in adverse environmental conditions. <i>Consistent:</i> The Project does not propose or require uses or development that would be characterized as “nuisances.” Rather, the implemented Project would establish a compatible and beneficial development within a currently underutilized property. The Specific Plan Development Standards and Design Guidelines and the City Development Code articulate measures and policies that would minimize potential nuisance effects of development. The Project would be required to comply with these measures and policies. On this basis, the Project is consistent with Policy LU2-4. |
| LU2-5 | <i>Regulation of Uses.</i> We regulate the location, concentration and operations of uses that have impacts on surrounding land uses. | Policy LU2-5 minimizes potential land use conflicts that could result in potentially adverse environmental impacts. <i>Consistent:</i> As substantiated in this EIR, the Project would not adversely affect surrounding land uses. To this end, all development and operations within the Project site would be required to conform to Development Standards and Design Guidelines established under the Specific Plan. The Project would further be required to conform to all City Development Code requirements. In combination, provisions of the Specific Plan and City Development Code act to ensure that the Project would not adversely impact surrounding land uses. On this basis, the Project is consistent with Policy LU2-5. |
| LU2-6 | <i>Infrastructure Compatibility.</i> We require infrastructure to be aesthetically pleasing and in context with the community character. | Policy LU2-6 minimizes potential aesthetic/visual impacts. <i>Consistent:</i> The Specific Plan would locate utility connections, utility cabinets, etc. in areas not visible from public vantages where feasible. In instances where utility connections or utility cabinets must be placed in areas visible to the public, the Specific Plan Design Guidelines provide for screening and/or landscaping to minimize views of utility equipment. On this basis, the Project is consistent with Policy LU2-6. |
| LU2-7 | <i>Inter-jurisdictional Coordination.</i> We maintain an ongoing liaison with IEUA, LAWA, Caltrans, Public Utilities Commission, the railroads and other agencies to help minimize impacts and improve the operations and aesthetics of their facilities. | Policy LU2-7 minimizes potential infrastructure systems impacts. <i>Consistent:</i> The Project does not propose or require elements or actions that would obstruct or otherwise interfere with the City’s Inter-jurisdictional Coordination efforts. On this basis, the Project is consistent with Policy LU2-7. |

**Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis**

| Goals/Policies | | Remarks |
|---|---|--|
| LU2-8 | <i>Transitional Areas.</i> We require development in transitional areas to protect the quality of life of current residents. | Policy LU2-8 minimizes potential land use conflicts that could result in potentially adverse environmental impacts. <i>Consistent:</i> The Project site does not lie within a Policy Plan Transitional Area. As substantiated in this EIR, the Project incorporates elements and operational programs that would act to minimize or avoid the Project's potentially significant environmental impacts and thereby protect the quality of life or current residents. On this basis, the Project is consistent with Policy LU2-8. |
| LU2-9 | <i>Methane Gas Sites.</i> We require sensitive land uses and new uses on former dairy farms or other methane-producing sites be designed to minimize health risks. | Policy LU2-9 minimizes potential methane hazards impacts. <i>Consistent:</i> This EIR incorporates mitigation that would reduce potential hazards/hazardous material impacts, including methane hazards impacts, to levels that would be less-than-significant. Please refer to EIR Section 4.6, <i>Hazards/Hazardous Materials</i> . On this basis, the Project is consistent with Policy LU2-9. |
| Goal LU3 Staff, regulations and processes that support and allow flexible response to conditions and circumstances in order to achieve the Vision. | | |
| LU3-1 | <i>Development Standards.</i> We maintain clear development standards which allow flexibility to achieve our Vision. | Policy LU3-1 minimizes the potential for development proposals to result in unacceptable designs, or development that would otherwise result in land use incompatibilities that would impede attainment of the City's Vision. <i>Consistent:</i> The Specific Plan incorporates Development Standards and Design Guidelines allowing for flexible development of the Project site supporting the Policy Plan Vision of "sustained, community-wide prosperity which continuously adds value and yields benefits." Development pursuant to the Specific Plan would establish contemporary Industrial and Business Park uses on a currently underutilized site. Benefits of the Project including, but not limited to, jobs creation, increased property tax and sales tax revenues, would promote community-wide prosperity and add value. On this basis, the Project is consistent with Policy LU3-1. |
| LU3-2 | <i>Design Incentives.</i> We offer design incentives to help projects achieve the Vision. | Policy LU3-2 minimizes the potential for development proposals to result in unacceptable designs, or development that would otherwise result in land use incompatibilities that would impede attainment of the City's Vision. <i>Consistent:</i> The Project does not propose elements or aspects that would obstruct or interfere with Design Incentives programs established by the City. The Specific Plan would establish land uses, Development Standards and Design Guidelines that would support the Policy Plan Vision. Please refer also to Remarks at Policy LU3-1. |

**Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis**

| Goals/Policies | | Remarks |
|---|---|--|
| LU3-3 | <p><i>Land Use Flexibility.</i> We consider uses not typically permitted within a land use category if doing so improves livability, reduces vehicular trips, creates community gathering places and activity nodes, and helps create identity.</p> | <p>Policy LU3-3 promotes sustainable and compatible development that reduces or precludes potentially adverse environmental effects.</p> <p><i>Consistent:</i> Land uses and development concepts proposed by the Specific Plan are not currently reflected in the Policy Plan Land Use Plan. The Applicant has requested amendment of the site’s existing Policy Plan Land Use designations to allow for implementation of the Specific Plan. The proposed Specific Plan provides for flexible and compatible development of the subject site. More specifically, the Specific Plan would implement compatible Industrial and Business Park uses on a currently under-utilized property. Development intensities and land use configurations proposed under the Specific Plan promote the highest and best use of the subject site.</p> <p>The Specific Plan Land Use Concept collocates Industrial and Business Park Land Uses in an urban/urbanizing area, thereby reducing home – work and work – home commutes, acting generally to reduce vehicle VMT locally and within the region. Corollary reductions in vehicle energy consumption and vehicular-source air pollutant and GHG emissions are anticipated.</p> <p>The Specific Plan development plans, Development Standards, and Design Guidelines would establish a Project identity differentiated from, but compatible with, adjacent land uses. Please refer also to Remarks at Policies LU1-1 and LU1-2.</p> <p>Based on the preceding, the Project is consistent with Policy LU3-3.</p> |
| LU4 Phased Growth | | |
| <p>Goal LU4 Development that provides short-term value only when the opportunity to achieve our Vision can be preserved.</p> | | |
| Policies | | Remarks |
| LU4-1 | <p><i>Commitment to Vision.</i> We are committed to achieving our Vision but realize that it may take time and several interim steps to get there.</p> | <p>Policy LU4-1 indirectly reduces environmental effects through continued commitment to the City’s Vision which in part includes promotion of environmentally superior and sustainable development.</p> <p><i>Consistent:</i> The Project would support The Ontario Plan Vision of “sustained, community-wide prosperity which continuously adds value and yields benefits.” Please refer to Remarks at Policies LU3-1, LU3-2. Based on the preceding, the Project is consistent with Policy LU4-1.</p> |

Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis

| Goals/Policies | | Remarks |
|---|--|--|
| LU4-2 | <p><i>Interim Development.</i> We allow development in growth areas that is not immediately reflective of our ultimate Vision provided it can be modified or replaced when circumstances are right. We will not allow development that impedes, precludes or compromises our ability to achieve our Vision.</p> | <p>Policy LU4-2 indirectly reduces environmental effects through rejection of development proposals that impede, preclude, or compromise attainment of the City's Vision.</p> <p><i>Consistent:</i> The Project does not propose interim development. Please refer to Remarks at Policies LU3-1, LU3-2, LU4-1.</p> |
| LU4-3 | <p><i>Infrastructure Timing.</i> We require that the necessary infrastructure and services be in place prior to or concurrently with development.</p> | <p>Policy LU4-3 reduces infrastructure and services impacts.</p> <p><i>Consistent:</i> Pursuant to provisions of Specific Plan, mitigation measures identified in this EIR, and City Conditions of Approval, the Project would provide and/or otherwise ensure to the satisfaction of the City, that infrastructure and services are timely available to meet Project demands. On this basis, the Project is consistent with Policy LU4-3.</p> |
| LU5 Airport Planning | | |
| Goal LU5 Integrated airport systems and facilities that minimize negative impacts to the community and maximize economic benefits. | | |
| Policies | | Remarks |
| LU5-1 | <p><i>Coordination with Airport Authorities.</i> We collaborate with FAA, Caltrans Division of Aeronautics, airport owners, neighboring jurisdictions, and other shareholders in the preparation, update and maintenance of airport-related plans.</p> | <p>Policy LU5-1 reduces adverse impacts associated with airfield/airport operations.</p> <p><i>Consistent:</i> The Applicant and City Staff would coordinate with the airport authority for the Chino Airport in evaluation of Project land uses in the context of the Chino Airport Overlay and Riverside County ALUCP for Chino Airport. Please refer also to related discussions presented at EIR Section 4.6, <i>Hazards/Hazardous Materials</i>.</p> <p>The Project does not propose facilities or uses that would interfere with or obstruct City collaboration or coordination with agencies or shareholders participating in or responsible for the preparation, update and maintenance of airport-related plans. On this basis, the Project is consistent with Policy LU5-1.</p> |
| LU5-2 | <p><i>Airport Planning Consistency.</i> We coordinate with airport authorities to ensure The Ontario Plan is consistent with state law, federal regulations, and/or adopted master plans and land use compatibility plans for the ONT and Chino airports.</p> | <p><i>Consistent:</i> Please refer to remarks at Policy LU5-1.</p> |

Table 4.1-4
Policy Plan - Land Use Element Goals and Policies Consistency Analysis

| Goals/Policies | | Remarks |
|----------------|--|---|
| LU5-3 | <i>Airport Impacts.</i> We work with agencies to maximize resources to mitigate the impacts and hazards related to airport operations. | Consistent: Please refer to remarks at Policy LU5-1. |
| LU5-6 | <i>Alternative Process.</i> We fulfill our responsibilities and comply with state law with regard to the Alternative Process for proper airport land use compatibility planning. | Consistent: Please refer to remarks at Policy LU5-1. |
| LU5-7 | <i>ALUCP Consistency with Land Use Regulations.</i> We comply with state law that requires general plans, specific plans and all new development be consistent with the policies and criteria set forth within an Airport Land Use Compatibility Plan for any public use airport. | Consistent: Please refer to Remarks at Policy LU5-1. |
| LU5-8 | <i>Chino Airport.</i> We will support the creation and implementation of the Airport Land Use Compatibility Plan for Chino Airport. | Consistent: Please refer to Remarks at Policy LU5-1. |

Sources: Goal/Policy statements from: Policy Plan, Land Use Element; Remarks-Applied Planning, Inc.

City of Ontario Development Code/Zoning

Zoning for the subject site would be established by the Specific Plan. The Specific Plan would be consistent with the Policy Plan Land Use Element as amended under the Project.

All development within the Project site would be subject to plans, requirements, standards, and guidelines established under the Specific Plan. In instances where the Specific Plan is silent, development within the Project site would be subject to requirements of the City Development Code. The Project does not propose or require amendment(s) to the City Development Code.

SCAG 2016 – 2040 Regional Transportation Plan/Sustainable Communities Strategy

The Project is also evaluated in the context of the SCAG 2016 – 2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 – 2040 RTP/SCS). Project consistency with applicable RTP/SCS goals is presented at Table 4.1-5.

**Table 4.1-5
Consistency with SCAG RTP/SCS Goals**

| RTP/SCS Goals | Remarks |
|---|--|
| <p><i>Goal 1:</i> Align the plan investments and policies with improving regional economic development and competitiveness.</p> | <p>Goal 1 indirectly reduces potentially adverse environmental effects by promoting economically sustainable development. Economically sustainable development reduces resources consumption and evidences compatible land uses.</p> <p><i>Consistent:</i> The Project proposes contemporary urban uses, providing an opportunity for development investment on currently underutilized land. The Project fiscal impact analysis substantiates its economic benefit to the City and region. The Project would implement compatible land uses and designs pursuant to requirements of the Specific Plan and City Development Code. On this basis, the Project is consistent with Goal 1.</p> |
| <p><i>Goal 2:</i> Maximize mobility and accessibility for all people and goods in the region.</p> | <p>Goal 2 promotes integrated multimodal transportation systems, reduces regional VMT, reduces transportation system impacts reduces resources consumption, reduces air pollutant and GHG emissions impacts.</p> <p><i>Consistent:</i> The Project’s land use concept collocates Industrial and Business Park uses in an urban context, proximate to employees and patrons. In this context, the Project would allow for reduced home – work, and work – work commutes, acting to generally reduce VMT locally and within the region. Corollary reductions in vehicle energy consumption and vehicular-source air pollutant emissions and GHG emissions would likely result. The Project would also incorporate bicycle and pedestrian access and amenities in accordance with the Specific Plan and the City Development Code. On this basis, the Project is consistent with Goal 2.</p> |
| <p><i>Goal 3:</i> Ensure travel safety and reliability for all people and goods in the region.</p> | <p>Goal 3 reduces transportation system impacts generally, and transportation system safety impacts specifically.</p> <p><i>Consistent:</i> The Project TIA identifies improvements that would promote and facilitate the safe movement of people and goods. All transportation modes within the Project area would be required to comply with incumbent regulatory safety standards. On this basis, the Project is consistent with Goal 3.</p> |
| <p><i>Goal 4:</i> Preserve and ensure a sustainable regional transportation system.</p> | <p>Goal 4 reduces transportation system impacts and resources consumption impacts.</p> |

**Table 4.1-5
Consistency with SCAG RTP/SCS Goals**

| RTP/SCS Goals | Remarks |
|---|--|
| | <p>Consistent: The Project TIA assesses all potentially affected roadways and identifies required improvements to the existing transportation network. The Project would construct required improvements, and/or would offset its incremental transportation system impacts through payment of requisite transportation/traffic impact fees. Project construction of required improvements and payment of transportation/traffic impact fees preserves and maintains sustainable local and regional transportation systems. Transportation Demand Management (TDM) measures implemented under the Project would act to reduce Project Vehicle Miles Traveled (VMT) impacts. On this basis, the Project is consistent with Goal 4.</p> |
| <p><i>Goal 5:</i> Maximize the productivity of our transportation system.</p> | <p>Goal 5 reduces VMT, transportation system impacts, and vehicular-source air pollutant emissions and GHG emissions impacts.</p> <p>Consistent: Under the Project, local and area-serving transportation systems would be improved and maintained to maximizes their efficiency and productivity. The City oversees the improvement and maintenance of all aspects of the public right-of-way on an as-needed basis. TDM measures implemented under the Project would act to reduce Project VMT impacts. On this basis, the Project is consistent with Goal 5.</p> |
| <p><i>Goal 6:</i> Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).</p> | <p>Goal 5 reduces VMT, transportation system impacts, and vehicular-source air pollutant emissions and GHG emissions impacts.</p> <p>Consistent: The Project would accommodate and would not interfere with existing or planned bicycle facilities and bikeway system improvements. The Project would incorporate bicycle and pedestrian amenities consistent with provisions of the Specific Plan and the City Development Code. TDM measures implemented under the Project would act to reduce Project VMT impacts. On this basis, the Project is consistent with Goal 6.</p> |
| <p><i>Goal 7:</i> Actively encourage and create incentives for energy efficiency, where possible.</p> | <p>Goal 7 reduces energy consumption, air pollutant emissions impacts and GHG emissions impacts.</p> <p>Consistent: Energy-saving and sustainable design features and operational programs would be incorporated in the Project consistent with provisions of the Specific Plan and pursuant to California Green Building Standards Code (CALGreen; CCR, Title 24, Part 11) as implemented by the City of Ontario. Additionally, the Project would implement the following conservation/sustainability measures:</p> <ul style="list-style-type: none"> • All Project buildings will be LEED Certified; |

**Table 4.1-5
Consistency with SCAG RTP/SCS Goals**

| RTP/SCS Goals | Remarks |
|--|---|
| | <ul style="list-style-type: none"> • Building and site designs will facilitate and incorporate use of renewable energy sources, including roofs that are structurally designed to support solar photovoltaic (PV) panels; • Building and site designs will incorporate conduit and infrastructure for electric car chargers; • Building and site designs will incorporate conduit and infrastructure for electric truck chargers; • To minimize the potential for on-site truck idling, site plans will be designed to ensure adequate circulation and access for trucks; • Truck trailer parking areas will be designed and configured to avoid vehicle stacking at the Project site access point and along adjacent streets; • LED Lighting will be provided throughout the Project (interior and exterior); and • Project grading will be balanced, thereby minimizing potential requirements for truck conveyance of soil import/export. • Project warehouse designs will provide 40-foot or higher interior clear heights, allowing for greater storage per square foot of building, reducing building footprints, and generally reducing construction material and energy demands; • Site designs will incorporate pedestrian/bicycle/multi-use paths and supporting amenities; • The Project Construction and Demolition Waste Management Plan will be designed and implemented to yield a minimum of 90 percent recycled/salvaged materials. <p>On this basis, the Project is consistent with Goal 7.</p> |
| <p><i>Goal 8:</i> Encourage land use and growth patterns that facilitate transit and non-motorized transportation.</p> | <p>Goal 8 reduces VMT, transportation system impacts, and vehicular-source air pollutant emissions and GHG emissions impacts.</p> <p>Consistent: The Project is provided proximate access to local and regional transportation facilities. Intensified development of the Project site in combination with existing and proposed proximate urban development would focus the transit ridership base, thereby supporting existing and future transit opportunities. The Project incorporates bicycle and pedestrian amenities that facilitate non-motorized transportation modes. TDM measures implemented under the Project would act to reduce Project VMT impacts. On this basis, the Project is consistent with Goal 8. Please refer also to Remarks at Goals 4 – 7.</p> |
| <p><i>Goal 9:</i> Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.</p> | <p>Goal 9 reduces transportation system safety/hazards impacts.</p> <p>Consistent: The City of Ontario is responsible for monitoring of roadways and transit routes to determine the adequacy and safety of these systems. The City and other local and regional agencies and</p> |

**Table 4.1-5
Consistency with SCAG RTP/SCS Goals**

| RTP/SCS Goals | Remarks |
|---------------|--|
| | organizations (e.g., RTA, Caltrans, and SCAG) cooperatively manage these systems. Security situations involving roadways and evacuations would be addressed through City emergency response plans. On this basis, the Project is consistent with Goal 9. |

Sources: Goal Statements from: 2016–2040 RTP/SCS; Remarks by Applied Planning, Inc.

Summary

As outlined above, the proposed Merrill Commerce Center Specific Plan would establish Land Uses, Development Standards, and Design Guidelines directing the ultimate buildout of the Project site. Land uses and development reflected within the proposed Specific Plan can be feasibly implemented consistent with applicable provisions of the City General Plan (as amended) and the City Development Code. Prior to issuance of development permits, the City would review the final development plans for individual projects within the Specific Plan area to ensure consistency with the Specific Plan document as approved by the City, and where applicable, City Development Code requirements. Further, the Project would be consistent with applicable land use and planning provisions of the Policy Plan, as amended. Project consistency with applicable Policy Plan Land Use and Planning Policies addressing avoidance and mitigation of environmental impacts is summarized at Table 4.1-4.

The Project is also considered to be consistent with, and would support land use and planning goals articulated in the *2016-2040 RTP/SCS*. Project consistency with applicable *2016-2040 RTP/SCS* Land Use and Planning Goals addressing avoidance and mitigation of environmental impacts is summarized at Table 4.1-5.

On the basis of the preceding, the potential for the Project to cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect is less-than-significant.

Level of Significance: Less-Than-Significant.

4.2 TRANSPORTATION

4.2 TRANSPORTATION

Abstract

This discussion of potential transportation impacts is organized under the following headings:

- *Vehicle Miles Traveled Analysis; and*
- *Other Transportation Topics.*

A summary of the analysis and findings under these topical headings is presented below.

The City specifically recognizes that vehicle delay (Level of Service, LOS) deficiencies are no longer environmental impacts under CEQA.¹ Although not specifically relevant to an analysis of CEQA transportation impacts, for City use and informational purposes, a Project Traffic Impact Analysis (Project TIA, TIA) addressing LOS impacts has been prepared (see: Merrill Commerce Center Specific Plan, Traffic Impact Analysis, City of Ontario [Urban Crossroads, Inc.] June 30, 2020; EIR Appendix C). The TIA identifies Study Area LOS deficiencies and recommends improvements to address any identified deficient conditions. Project trip generation estimates developed as part of the Project TIA are employed in the VMT analysis presented in this Section, and the trip generation estimates also employed in related analyses (e.g., vehicular-source emissions air quality impacts, vehicular-source noise impacts) presented elsewhere in this EIR.

¹ CEQA Guidelines Section 15064.3, effective January 1, 2019, “describes specific considerations for evaluating a project’s transportation impacts” and provides that, except for roadway capacity projects, “a project’s effect on automobile delay (or LOS) shall not constitute a significant environmental impact.” (CEQA Guidelines, § 15064.3, subd. (a).)

Vehicle Miles Traveled (VMT) Assessment

CEQA Guidelines Section 15064.3 (statute effective July 1, 2020) requires analysis of the Project's potential vehicle miles traveled (VMT) impacts. Detailed analysis of the Project's potential VMT impacts is presented in Merrill Commerce Center Specific Plan Vehicle Miles Traveled (VMT) Assessment (Urban Crossroads, Inc.) January 14, 2020 (Project VMT Assessment). Findings and conclusions of the Project VMT Assessment are summarized in this Section and the Project VMT Assessment in total is presented at EIR Appendix C. The Project VMT Assessment estimates the Project VMT/Service Population (Project VMT/SP) and compares the Project VMT/SP to a calculated City Average Existing VMT/SP. Within this analysis, Project VMT/SP that would exceed 85 percent of the City Average Existing VMT/SP would be considered a potentially significant VMT Impact.

It is recognized here, that the VMT thresholds employed in this EIR analysis predate the City's formal adoption of VMT thresholds in conformance with SB 743 (see: City of Ontario City Council Resolution No. 2020-071, adopted June 16, 2020).² In this respect, the EIR VMT threshold (85 percent of the City Average Existing VMT/SP) is more restrictive than the City's June 16, 2020 adopted VMT threshold (exceedance of Citywide Average VMT/SP under General Plan Buildout Conditions). More specifically and quantitatively, the EIR VMT/SP thresholds are: 31.96 VMT/SP when considering only Project automobile VMT; and 35.96 VMT/SP when considering Total Project VMT/SP (Project automobile VMT + Project truck VMT/SP). In comparison, City Average VMT/SP under City General Plan Buildout Conditions (year 2040) is estimated at 37.90 VMT/SP when considering only automobile VMT/SP; and 42.80 VMT/SP when considering automobile VMT + truck VMT. The analysis presented here therefore conservatively overestimates rather than underestimates the significance of the Project's potential VMT impacts.

Potentially significant VMT impacts are mitigated through implementation of Transportation Demand Management (TDM) measures identified in this Section. As substantiated here, even with implementation of proposed TDM measures, Project VMT impacts would be significant and unavoidable.

² For reference, City of Ontario City Council Resolution No. 2020-071 and the accompanying Agenda Report are included at EIR Appendix C.

Additionally, within this analysis, significant and unavoidable VMT impacts at the Project level are also determined to be cumulatively significant and unavoidable. This conclusion is consistent with the determination that would be reached employing the City's cumulative analysis threshold wherein a "[cumulatively] significant impact would occur if the project caused total daily VMT within the City to be higher than the no project [no build] alternative under cumulative conditions."

Other Transportation Topics

Other transportation topics evaluated in this Section include the following:

- *Potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;*
- *Potential to substantially increase hazards to a geometric design feature; and*
- *Potential to result in inadequate emergency access.*

The analysis presented here substantiates that Project impacts under the preceding "other transportation topics" would be less-than-significant.

4.2.1 VMT ASSESSMENT

4.2.1.1 Background

Transportation impact analyses prepared by the City have historically been based on level of service (LOS) and similar vehicle delay/congestion metrics. The LOS analytic model provides a reasonable assessment of vehicle congestion and driving conditions that may result from a given development project. LOS analyses do not however evaluate the range and magnitude of other environmental effects attributable to development traffic, including fuel consumption, criteria air pollutant emissions, and greenhouse gas emissions. These latter issues have however been historically addressed, and are currently addressed within this EIR's *Air Quality, Greenhouse Gas Emissions, and Energy* Sections. In response to these latter concerns and to comprehensively evaluate environmental impacts of development traffic, the *CEQA Guidelines* (amended December 2019) include new Section 15064.3 addressing transportation impacts. In summary, *CEQA*

Guidelines Section 15064.3 establishes Vehicle Miles Traveled (VMT) as the appropriate metric for evaluation of project transportation impacts.

Consistent with *CEQA Guidelines* Section 15064.3 requirements, an analysis of the Project's potential VMT impacts is presented below. Please refer also to the *Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment* (Urban Crossroads, Inc) January 14, 2020 (Project VMT Assessment) presented at EIR Appendix C.

The Project VMT Assessment substantiates the potential for the Project to conflict with or be inconsistent with *CEQA Guidelines* Section 15064.3, subdivision (b). For ease of reference, *CEQA Guidelines* Section 15064.3, subdivision (b) is presented below.

§ 15064.3. Determining the Significance of Transportation Impacts.

(b) Criteria for Analyzing Transportation Impacts.

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with *CEQA* and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

- (3) **Qualitative Analysis.** If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

- (4) **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

4.2.1.2 Methodology

As provided for under *CEQA Guidelines* Section 15064.3 (b) (4) (above), “[a] lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. Within this analysis, evaluation of the Project VMT impacts is guided by *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) (Governor’s Office of Planning and Research, OPR) December 2018. The Technical Advisory fulfills the state (SB 743) mandate that “OPR [is] to establish specific ‘criteria for determining the significance of transportation impacts of projects[.]’ (Technical Advisory, p. 7).

As provided for under the Technical Advisory, and to identify potential VMT impacts of the Project, the Project VMT Assessment establishes an Average Existing VMT/Service Population (SP) and compares that with the Project VMT/SP. The Technical Guidance

indicates “that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold” (Technical Advisory, p. 10). In the case of the Project and the analysis presented here, the Service Population comprises employees.

Consistent with the Technical Advisory guidance, Project VMT/SP exceeding 85 percent of the Average Existing VMT/SP would be considered a potentially significant VMT impact. This is a conservative significance threshold that correlates with and supports State GHG emissions reductions targets. The VMT threshold employed in this analysis purposely does not take into account or take credit for emerging technologies or regulatory actions that would act to reduce GHG emissions, translating to less stringent VMT reduction thresholds. As just one example, by 2023, all trucks will have to be compliant with CARB 2010 Truck and Bus Regulation emissions standards. Absent any VMT reductions, the CARB 2010 Truck and Bus Regulation emissions standards would reduce truck emissions (including GHG emissions) when compared to GHG emissions generated by non-2010 fleets.³

Mitigation measures are proposed for Project VMT impacts determined to be potentially significant. The Project VMT Assessment and the discussions in this Section incorporate and reflect current VMT information, analysis methodologies, and analysis protocols presented in the following:

- *WRCOG SB 743 Implementation Pathway Document Package* (Fehr + Peers [for WRCOG]) March 2019 [see: <http://www.fehrandpeers.com/wp-content/uploads/2019/03/WRCOG-SB743-Document-Package.pdf>];
- *San Bernardino Countywide Plan Draft Program Environmental Impact Report*, State Clearinghouse No. 2017101033 (Placeworks [for San Bernardino County]) June 2019 [see: <http://countywideplan.com/eir/>];

³ NO_x emissions, an indirect greenhouse gas contributor, would be reduced by approximately 50 percent. Additionally, PM₁₀ emissions would be reduced by approximately 31 percent (source EMFAC2017).

- *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association [CAPCOA] August 2010 [see: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>]; and
- The Countywide Comprehensive Transportation Plan, San Bernardino County Transportation Analysis Model (San Bernardino County Transportation Authority [SBCTA]) 2018 [see: <http://gosbcta.com/plans-projects/plans-CTP.html>].

Further detail regarding the Project VMT Assessment is provided below.

VMT/SP Calculations

City Average VMT

Consistent with City protocols, the San Bernardino County Transportation Analysis Model (SBTAM, Model) was employed to estimate City Average VMT. SBTAM is a sub-regional model that was developed based on the Southern California Association of Governments (SCAG) Regional Planning model. SBTAM is functionally similar to the SCAG model with a focused approach to San Bernardino County, having disaggregated zones within the County area and aggregated zones outside of the county. SBTAM uses socioeconomic data to model travel behavior. The Model responds to changes in land use types, household and employment characteristics, transportation infrastructure, and travel costs. Use of the Model for purposes of estimating VMT is appropriate since the information contained in the Model is specific to the Project region and Project land use types. Furthermore, use of travel demand models generally is a recommended practice supported by the Technical Advisory. More specifically, the Technical Advisory states:

. . . agencies can use travel demand models or survey data [in this case SBTAM] to estimate existing trip lengths and input those into sketch models such as CalEEMod to achieve more accurate results. Whenever possible, agencies should input localized trip lengths into a sketch model to tailor the analysis to the project location (Technical Advisory, p. 31).

Related discussion regarding selection and use of VMT analysis methodologies is presented at *CEQA Guidelines* Section 15064.3. (b) (4), excerpted in pertinent part below:

15064.3. (b) (4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

The Project VMT Assessment and use of SBTAM to estimate VMT conforms to, and is supported by, provisions and requirements of the Technical Advisory and *CEQA Guidelines* noted above. The City Average VMT was calculated based on select-zone 2012 and 2040 SBTAM runs for all the Traffic Analysis Zones (TAZs) within the City of Ontario. SBTAM modeling data is provided at Attachment A to the Project VMT Assessment.

City Service Population

For the purposes of the Project VMT Assessment, Service Population (SP) is defined as employees + residents. The City Service Population was calculated based on SBTAM socio-economic data for City of Ontario TAZs for the years 2012 and 2040.

City Average VMT/SP

The Project would generate both automobile and truck traffic. As part of this analysis, Project VMT/SP estimates for automobiles, as well as trucks, have been calculated.

To facilitate direct comparison of Project VMT to the City Average VMT/SP, the City Average VMT/SP has been disaggregated into automobile and truck components.

SBTAM estimates of VMT (automobiles and trucks), population, employment, and resulting VMT/SP for the City of Ontario (2012 and 2040) are summarized at Table 4.2-1.

Table 4.2-1
City of Ontario VMT, Population, Employment, SP, and VMT/SP Estimates: 2012, 2040

| | SBTAM 2012 | SBTAM 2040 |
|-----------------------|------------|------------|
| Automobile VMT | 8,586,612 | 14,063,294 |
| Truck VMT | 1,062,164 | 1,810,305 |
| TOTAL VMT | 9,648,776 | 15,873,599 |
| Population | 163,356 | 256,593 |
| Employment | 65,602 | 114,536 |
| SP | 228,958 | 371,129 |
| Auto VMT/SP | 37.5 | 37.9 |
| Total VMT/SP | 42.1 | 42.8 |

Source: Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment (Urban Crossroads, Inc) January 14, 2020.

The Baseline (2019) City Average VMT/SP (Automobile VMT and Total VMT) was calculated by linearly interpolating SBTAM data for the years 2012 and 2040. Table 4.2-2 provides a summary of the City Average Automobile VMT/SP and Total VMT/SP for 2012, 2019, and 2040.

Table 4.2-2
City Average VMT/SP Estimates: 2012, 2019, 2040

| | 2012 VMT/SP | 2019 VMT/SP | 2040 VMT/SP |
|-------------|-------------|-------------|-------------|
| Automobiles | 37.5 | 37.6 | 37.9 |
| Total | 42.1 | 42.3 | 42.8 |

Source: Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment (Urban Crossroads, Inc) January 14, 2020.

Project VMT/SP Calculation

Project VMT

The Project VMT calculation has two components – the total number of vehicle trips generated and the average trip length of each vehicle. Each calculation component is described below. Consistent with guidance provided in the Technical Advisory,

excerpted in pertinent part below, an assessment of Automobile VMT/SP has been provided.

Vehicle Types. Proposed Section 15064.3, subdivision (a), states, “For the purposes of this section, ‘vehicle miles traveled’ refers to the amount and distance of automobile travel attributable to a project.” Here, the term “automobile” refers to on-road passenger vehicles, specifically cars and light trucks (Technical Advisory, p. 4).

For disclosure and consistency purposes, VMT generated by the Project truck traffic is also identified and is reflected in the Project VMT Assessment and impact determinations are made on the basis of both automobile and truck VMT.

Project Trip Generation

Project average daily trips (ADT) have been calculated based on trip generation rates presented in *ITE Trip Generation Manual*, 10th Edition (2017). Total Project trip generation and trip generation by vehicle category (automobiles/trucks) is summarized at Table 4.2-3. Trips are expressed in terms of actual vehicles (as opposed to PCEs).

**Table 4.2-3
Project Trip Generation by Vehicle Category**

| Vehicle Type | ADT |
|--------------|---------------|
| Automobiles | 16,286 |
| Trucks | 3,520 |
| Total | 19,806 |

Source: Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment (Urban Crossroads, Inc) January 14, 2020.

Please refer also to the discussion of trip generation presented previously within this Section and the detailed Project trip generation calculations presented in the Project TIA.

Project Average Trip Length

A select-zone SBTAM model run for the Project Traffic Analysis Zone (TAZ) was conducted to establish the Project average automobile trip lengths. Adjustments to the SBTAM data were made to reflect the Project land uses.

The average trip length for trucks was based on the South Coast Air Quality Management District (SCAQMD) documents for the implementation of the Facility-Based Mobile Source Measures (FBMSMs) adopted in the 2016 Air Quality Management Plan (AQMP). SCAQMD’s “Preliminary Warehouse Emission Calculations” cites a 39.9 mile trip length for heavy-heavy trucks, and 15.5 mile trip length for light-heavy trucks (see: https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/preliminary-draft-2023-ei_warehouses.xlsx?sfvrsn=60).

Thus, the VMT estimates used for trucks in this EIR are consistent with the assumptions made by SCAQMD and those contained in the Air Quality section of this EIR. As a conservative measure and for the purposes of this analysis, a trip length of 40 miles has been utilized for all trucks. Average trip lengths are summarized at Table 4.2-4.

**Table 4.2-4
Project TAZ Average Trip Length**

| Vehicle Type | Average Trip Length (Miles) |
|--------------|-----------------------------|
| Automobiles | 16.5 |
| Trucks | 40.0 |

Source: Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment (Urban Crossroads, Inc) January 14, 2020.

Project VMT

Reflecting the Project trip generation estimates and average trip lengths presented above, Table 4.2-5 summarizes total Project Daily VMT and Daily VMT by vehicle category.

**Table 4.2-5
Project VMT Summary**

| Vehicle Type | ADT | Average Trip Length (Miles) | Daily VMT |
|--------------|--------|-----------------------------|-----------|
| Automobiles | 16,286 | 16.5 | 268,719 |
| Trucks | 3,520 | 40.0 | 140,800 |
| Total | 19,806 | 20.68 | 409,519 |

Source: Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment (Urban Crossroads, Inc) January 14, 2020.

Project SP

The Project does not have a residential component – the Project SP therefore comprises employees only. Project tenants are not yet known, and the number of jobs that the Project would generate therefore cannot be precisely determined. For purposes of this analysis, employment estimates were calculated using employment density factors provided in *Ontario General Plan Buildout Methodology*, April 2015 (Methodology) (see: <http://www.ontarioplan.org/wp-content/uploads/sites/4/2016/01/Methodology-Revised.pdf>).

More specifically, the Methodology assumes that 50 percent of Business Park employment would be “non-office” and 50 percent would be “office.” The Methodology also assumes that 90 percent of Industrial [warehouse] employment would be “non-office” and 10 percent would be “office.” Per the Methodology, non-office uses generate 0.65 Employees/Thousand Square Feet (TSF); office uses generate 2.86 Employees/TSF. On this basis, the Project 7,014,000 sf of Industrial [Warehouse] uses would generate 4,013 non-office jobs and 2,006 office jobs. The Project 1,441,000 sf of Business Park Uses would generate 468 non-office jobs and 2,061 office jobs. In total, the Project would create an estimated 8,638 new jobs.

Project VMT/SP

Reflecting the estimated Project VMT and estimated Project SP presented above, Table 4.2-6 summarizes Project VMT/SP.

**Table 4.2-6
Project VMT/SP**

| | |
|---------------------------|---------|
| Project SP (Employees) | 8,638 |
| Project Automobile VMT | 268,719 |
| Project Truck VMT | 140,800 |
| Project Total VMT | 409,519 |
| Project Automobile VMT/SP | 31.11 |
| Project Total VMT/SP | 47.41 |

Source: Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment (Urban Crossroads, Inc) January 14, 2020.

Other Considerations

Alternative transportation modes and facilities (e.g., bus service, bicycle routes, pedestrian paths) are generally available within the Study Area and could potentially reduce the Project VMT. However, the VMT reducing potentials of alternative travel modes were not considered in the Project VMT Assessment. Project VMT estimates considered in this analysis therefore represent the likely maximum Project VMT impact conditions.

VMT Threshold of Significance

VMT threshold guidance employed herein is provided in the Technical Advisory. In this regard, the Technical Advisory recommends . . . “that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold” (Technical Advisory, p. 10). Consistent with this guidance, a fifteen percent reduction in existing City Average VMT/Service Population (SP) is established as the VMT threshold condition for the Project. For the purposes of this analysis, the City Average VMT/SP and related thresholds are quantified as Automobile VMT/SP, and Total VMT/SP.

Stated otherwise, Project VMT/SP that exceeds 85 percent of the existing City Average VMT/SP condition is considered a potentially significant VMT/transportation impact. The Average Existing Automobile VMT/SP of 37.6 VMT/SP \times 0.85 = 31.96 VMT/SP. The Automobile VMT/SP threshold for the Project is therefore 31.96 VMT/SP. The existing City Average Total VMT/SP of 42.3 VMT/SP \times 0.85 = 35.96 VMT/SP. The Total VMT/SP threshold for the Project is therefore 35.96 VMT/SP.

It is recognized here, that the VMT thresholds employed in this EIR analysis predate the City’s formal adoption of VMT thresholds in conformance with SB 743 (see: City of Ontario City Council Resolution No. 2020-071, adopted June 16, 2020).⁴ In this respect, the EIR VMT threshold (85 percent of the City Average Existing VMT/SP) is more restrictive than the City’s June 16, 2020 adopted VMT threshold (exceedance of Citywide

⁴ For reference, City of Ontario City Council Resolution No. 2020-071 and the accompanying Agenda Report are included at EIR Appendix C.

Average VMT/SP under General Plan Buildout Conditions). More specifically and quantitatively, the EIR VMT/SP thresholds are: 31.96 VMT/SP when considering only Project automobile VMT; and 35.96 VMT/SP when considering Total Project VMT/SP (Project automobile VMT + Project truck VMT/SP). In comparison, City Average VMT/SP under City General Plan Buildout Conditions (year 2040) is estimated at 37.90 VMT/SP when considering only automobile VMT/SP; and 42.80 VMT/SP when considering automobile VMT + truck VMT. The analysis presented here therefore conservatively overestimates rather than underestimates the significance of the Project's potential VMT impacts.

Project VMT Impact

The Project would generate an estimated 31.11 Automobile VMT/SP. This is 0.85 Automobile VMT/SP less than the 31.96 Automobile VMT/SP significance threshold. Automobile VMT/SP impacts would therefore be less-than-significant.

The Project would generate an estimated 47.41 Total VMT/SP. This is 11.45 Total VMT/SP greater than the 35.96 Total VMT/SP significance threshold. Thus, the Project total VMT/SP impacts would be potentially significant.

Level of Significance: *Potentially Significant (Total VMT/SP)*. Project Total VMT/SP of 47.41 VMT/SP would exceed the Total VMT/SP threshold of 35.96 VMT/SP. This is a potentially significant impact.

Mitigation Measures: Mitigation of the Project's potentially significant VMT impacts would be achieved through implementation of Transportation Demand Management (TDM) measures. Mitigation proposed here comprises TDM measures identified in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association [CAPCOA] August 2010 (see: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>).

CAPCOA identifies 41 TDM measures that could potentially reduce VMT. With respect to the Project, the predominance of these measures are actions or programs that would

be challenging for the Lead Agencies to reasonably implement and monitor. Other CAPCOA TDMs would completely change the nature of the Project or include strategies beyond the purview of the Lead Agency and/or Applicant. These TDMs in effect compare types of projects that would be less likely to cause VMT impacts rather than establish feasible development-level VMT mitigation.

Of the 41 TDM measures identified by CAPCOA, 7 have potential relevance to the Project considered here. These TDM measures are identified below, and their potential application in the context of the Project is discussed.

- TDM Measure 1: Increase Diversity of Land Uses. Having different types of land uses near one another can decrease VMT since trips between land use types are shorter and may be accommodated by non-auto modes of transport. For example, when residential areas are in the same neighborhood as retail and office buildings, a resident does not need to travel outside of the neighborhood to meet his/her trip needs.

Remarks: The Project proposes the construction of up to 7,014,000 square feet of high-cube fulfillment center uses and up to 1,441,000 square feet of business park uses. In order for the above measure to apply, at least three of the following need to be located on-site, or off-site within ¼ mile of the Project: Residential Development, Retail Development, Park, Open Space, or Office. There may be office space located on-site and off-site within ¼ mile of the Project; and potential future residential development may occur off-site within ¼ mile of the Project. However, there are no existing or proposed retail developments within a ¼ mile of the Project, nor is there existing or proposed designated Open Space. This measure is therefore not evaluated further as means of providing a substantial reduction in Project VMT.

It is however recognized that the Project would introduce additional employment opportunities, acting to generally improve the City and region jobs/housing balance. The resulting improved jobs/housing balance could reduce area-wide commute VMT. This analysis however conservatively assumes no such VMT reduction.

- TDM Measure 2: Provide Pedestrian Network Improvements. Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT.

Remarks: There are existing sidewalks off-site along portions of Merrill Avenue, Flight Avenue, and Van Vliet Avenue. However, field observations indicate there is nominal pedestrian activity in the Study Area (Project TIA, p. 39). This is likely due to the current lack of diversity of land uses.

Additionally, in the vicinity of the Project site, a multipurpose trail is planned along Grove Avenue (N – S); a multipurpose trail is planned along Vineyard Avenue (N – S); a multipurpose trail and Class II Bike Route (striped separate bike lanes) are planned along Walker Avenue (N – S); a multipurpose trail and Class II Bike Route are planned along Eucalyptus Avenue; and a multipurpose trail and Class II Bike Route are planned along Merrill Avenue. These improvements would globally improve pedestrian and bicycle access within and through the Study Area. Additionally, consistent with City requirements and provisions of the Merrill Commerce Center Specific Plan, the Project would implement on-site pedestrian/bicycle/multi-purpose paths and supporting amenities that would encourage use of alternative transportation modes. These Project design features in combination with City master-planned facilities would act to generally reduce VMT within the Study Area. At this concept stage of development, quantification of resulting VMT reductions is uncertain, and this analysis conservatively takes no credit for such reductions. This measure is therefore not evaluated further as means of providing a substantial reduction in Project VMT.

- TDM Measure 3: Provide Traffic Calming Measures. Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.

Remarks: As noted in the preceding discussions, the industrial nature of the Project and similar characteristics of surrounding uses tend to constrain pedestrian and bicycle activity as alternative transportation modes that would reduce Project VMT. This measure is therefore not evaluated further as means of providing a substantial reduction in Project VMT.

The Project would nonetheless provide on-site pedestrian and bicycle amenities as required by the City of Ontario Development Code, CALGreen, and pursuant to applicable provisions of the Merrill Commerce Center Specific Plan.

- TDM Measure 4: Implement Car-Sharing Program. Implementing a car-sharing program would allow individuals to have on-demand access to a shared fleet of vehicles on an as-needed basis. User costs are typically determined through mileage or hourly rates, with deposits and/or annual membership fees.

Remarks: It is possible that employers within the Project site could implement car-sharing programs. This may provide car access for employees on an as-needed basis, and thereby alleviate some of the costs and responsibilities of individual car ownership. However, this would not necessarily result in a reduction of VMT but would rather transfer the VMT source from individually-owned autos to employee-subsidized autos. Moreover, CAPCOA indicates that this measure would at most result in 0.4 to 0.7% reduction in VMT (*Quantifying Greenhouse Gas Mitigation Measures*, p. 245). This measure is therefore not evaluated further as means of providing a substantial reduction in Project VMT.

- TDM Measure 5: Increase Transit Service Frequency and Speed. This measure serves to reduce transit-passenger travel time through reduced headways and increased speed and reliability. This makes transit service more attractive and may result in a mode shift from auto to transit which reduces VMT.

Remarks: The Study Area is currently served by Omnitrans and RTA. No bus routes currently provide proximate service (within one-quarter mile) of the Project site.

Transit service is periodically reviewed and updated by Omnitrans and RTA to address ridership demand and community needs. Changes in land use can affect these periodic adjustments which may lead to correlating revisions to transit services. It is recommended that the Applicant, Lead Agency, Omnitrans, and RTA coordinate transit services and amenities available to the Project area. Implementation of this measure would require agency planning, oversight, and authorization beyond control of the Applicant. It is therefore not evaluated further as means of providing a substantial reduction in Project VMT.

- TDM Measure 6: Encourage Telecommuting and Alternative Work Schedule. Encouraging telecommuting and alternative work schedules reduces the number of commute trips and employee VMT. Alternative work schedules could take the form of staggered starting times, flexible schedules, or compressed work weeks.

Remarks: The effectiveness of this measure is dependent on the ultimate building tenant(s), which are unknown at this time. This measure could provide for a potential reduction in Project VMT. CAPCOA notes that implementation of this measure could reduce commute VMT by 0.07 – 5.50 % (*Quantifying Greenhouse Gas Mitigation Measures*, p. 236).

- TDM Measure 7: Provide Ride-Sharing Programs. Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT. This measure would provide for a ride-sharing program as well as a permanent transportation management association membership and a funding requirement. Funding may be provided by Community Facilities, District, or County Service Area, or other non-revocable funding mechanism. Ride-sharing programs could be facilitated through:
 - Designating a certain percentage of parking spaces for ride sharing vehicles;
 - Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles; and
 - Providing a web site or message board for coordinating rides.

Remarks: The effectiveness of this measure is dependent on the ultimate building designs and tenant(s), which are unknown at this time. This measure could provide for a potential reduction in Project VMT. CAPCOA notes that implementation of this measure could reduce commute VMT by 1.0 – 15.0% (*Quantifying Greenhouse Gas Mitigation Measures*, p. 227).

As indicated above, of the seven TDM measures with potential application to the Project, only two (*TDM Measure 6: Encourage Telecommuting and Alternative Work Schedule; and TDM Measure 7: Provide Ride-Sharing Programs*) could provide for any potentially meaningful reduction in Project VMT. These TDM measures are restated as EIR Mitigation Measures, below:

- 4.2.1 *The following language or similar shall be incorporated in all Project contract, construction, and property sale/lease documents: “Owners/tenants shall, to the extent practical, allow for and encourage Telecommuting and Alternative Work Schedules.”*
- 4.2.2 *The following language or similar shall be incorporated in all Project contract, construction, and property sale/lease documents: “Owners/tenants shall, to the extent practical, allow for and encourage ride-sharing programs.”*
- 4.2.3 *The Applicant shall record a covenant for the Project requiring implementation and administration of a Transportation Demand Management (TDM) program for each Project building/occupancy with 250 or more employees. The form of the covenant shall be approved by the City Attorney’s Office. The covenant shall be recorded prior to issuance of a Certificate of Occupancy for the subject building(s).*
- 4.2.4 *Prior to issuance of a Certificate of Occupancy for each building/occupancy providing for 250 or more employees, each owner/tenant shall develop a use/occupant-specific TDM program. The TDM program shall submitted to the City Planning Department and City Building Department as part of tenant improvements plan(s) documentation. At a minimum, the TDM program shall:*

- *Identify physical improvements (if any) to be implemented as part of the TDM program. The City Planning/Building Department shall verify completion of physical TDM improvements as part of the Certificate of Occupancy process.*
- *Identify TDM program operational strategies to be implemented. These TDM strategies may include but would not be limited to the following:*
 - *On-site services such as food, retail, and other services to be provided.*
 - *Ridesharing. Develop a commuter listing of all employee members for the purpose of providing a “matching” of employees with other employees who live in the same geographic areas and who could rideshare.*
 - *Vanpooling. Develop a commuter listing of all employees for the purpose of matching numbers of employees who live in geographic proximity to one another and could comprise a vanpool or participate in the existing vanpool programs.*
 - *Guaranteed Ride Home Program. Develop and implement a program to provide employees who rideshare, or use transit or other means of commuting to work, with a prearranged ride home in a taxi, rental car, shuttle, or other vehicle, in the event of emergencies during the work shift.*
 - *Target Reduction of Longest Commute Trip. Provide incentives for ridesharing and other alternative transportation modes to put highest priority on reduction of longest employee commute trips.*
 - *Implement staggered work shifts to the extent practical.*
 - *Implement telecommute programs to the extent practical.*
- *Establish a TDM coordinator position. The position of TDM coordinator may be fulfilled by the building owner/lessee, an employee, or third-party provider. The TDM coordinator shall:*

- *Identify proposed TDM measures to be implemented and provide a list of implemented measures to the City Planning Department;*
- *Inform employees of commute options and shall, as applicable, arrange rideshare or vanpool programs;*
- *Develop and implement a TDM monitoring program. The TDM monitoring program shall identify trip generation, trip origin(s), average vehicle ridership, and provide an estimate of VMT/employee. The results of the survey shall be submitted annually to the City Planning Department;*
- *Based on the results of the TDM monitoring program, provide TDM modification recommendations to the City and affected owners/tenants. Additional/alternative VMT reduction measures that would act to reduce Project VMT levels and that are mutually agreed to by the City and owners/tenants shall be implemented.*

Level of Significance With Mitigation: Significant and Unavoidable. Implementation of Mitigation Measures 4.2.1 through 4.2.4 have the potential to reduce Project VMT. The effectiveness of these measures would be dependent in part on final Project designs and occupancies, which are unknown at this time. Beyond Project design and tenancy considerations, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the Project is characteristically suburban. Of itself, the Project's suburban context acts to reduce the range of feasible TDM measures and moderates their potential effectiveness. Relevant discussion in this regard is presented in *WRCOG SB 743 Implementation Pathway Document Package* (Fehr + Peers [for WRCOG]) March 2019, excerpted in pertinent part below:

The [OPR] Technical Advisory relies on the *Quantifying Greenhouse Gas Mitigation Measures*, (CAPCOA) 2010 resource document to help justify the 15 percent reduction in VMT threshold stating, "...fifteen percent reduction in VMT are achievable at the project level in a variety of place types...". A more accurate reading of the CAPCOA document is that a fifteen percent is the maximum reduction when combining multiple mitigation strategies for

the *suburban center*⁵ place type. For *suburban*⁶ place types, 10 percent is the maximum and requires a project to contain a diverse land use mix, workforce housing, and project-specific transit. It is also important to note that the maximum percent reductions were not based on data or research comparing the actual performance of VMT reduction strategies in these place types. Instead, the percentages were derived from a limited comparison of aggregate citywide VMT performance for Sebastopol, San Rafael, and San Mateo where VMT performance ranged from 0 to 17 percent below the statewide VMT/capita average based on data collected prior to 2002. Little evidence exists about the long-term performance of similar TDM strategies in different land use contexts. As such, VMT reductions from TDM strategies cannot be guaranteed in most cases (WRCOG SB 743 Implementation Pathway Document Package, pp. 65 – 66).

As indicated in the preceding discussion, even under the most favorable circumstances, projects located within a suburban context, such as the Project evaluated here, could realize a maximum 10 percent reduction in VMT through implementation of feasible TDM measures. For the Project, this could reduce the Project Automobile VMT/SP from to 31.11 VMT/SP to 28.00 VMT/SP which would not exceed the applicable Automobile VMT/SP of 31.96 Automobile VMT/SP. A 10 percent reduction in Project Total VMT (47.41 Total VMT/SP) would yield 42.67 Total VMT/SP, which would still exceed the threshold condition of 35.96 Total VMT/SP.

It is also recognized that as the Project area and City develop as envisioned under the Policy Plan, new residential, commercial/retail, and industrial development would be implemented. These actions could collectively alter transportation patterns, improve the City's jobs/housing ratio, diminish VMT/SP, and support implementation of new or

⁵ **Suburban Center:** A project typically involving a cluster of multi-use development within dispersed, low-density, automobile dependent land use patterns (a suburb). The center may be an historic downtown of a smaller community that has become surrounded by its region's suburban growth pattern in the latter half of the 20th Century. The suburban center serves the population of the suburb with office, retail and housing which is denser than the surrounding suburb (Quantifying Greenhouse Gas Mitigation Measures, p. 60).

⁶ **Suburban:** A project characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside of the central city . . . (Quantifying Greenhouse Gas Mitigation Measures, p. 60).

alternative TDM measures. There is no means however to quantify any VMT reductions that could result. Additionally, the effectiveness of the TDM strategies that have potential to reduce the Project VMT/SP are dependent on a as yet unknown final Project designs building tenant(s); and as noted above, “VMT reductions from TDM strategies cannot be guaranteed in most cases.”

In summary, unmitigated Project Automobile VMT/SP would not exceed applicable thresholds. However, unmitigated Project Total VMT/SP would exceed applicable thresholds. The Project would implement TDM measures that could potentially further reduce already less-than-significant Automobile VMT/SP impacts. However, even with implementation of TDM measures, Total VMT/SP impacts could not be reduced to levels that would be less-than-significant. In any case, the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured at this concept stage of Project development. *The Project VMT impact is therefore considered significant and unavoidable.*

Cumulative VMT Impacts

As summarized in *WRCOG SB 743 Implementation Pathway Document Package . . .* “VMT thresholds based on an efficiency form of the metric such as VMT per capita, can address project and cumulative impacts in a similar manner that some air districts do for criteria pollutants and GHGs (*WRCOG SB 743 Implementation Pathway Document Package, p. 67*). In this respect, significant and unavoidable VMT impacts at the Project level would also be considered cumulatively significant. This conclusion is consistent with the determination that would be reached employing the City’s cumulative analysis threshold wherein a “[cumulatively] significant impact would occur if the project caused total daily VMT within the City to be higher than the no project [no build] alternative under cumulative conditions.”

Induced VMT Assessment

Use of VMT as an environmental impact metric for transportation projects is discretionary under Section 15064.3 (b) (2) of the *CEQA Guidelines*:

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

The Technical Advisory states that building new roadways, adding roadway capacity in congested areas, or adding roadway capacity to areas where congestion is expected in the future, typically induces additional vehicle travel. OPR identifies addition of through lanes on existing or new highways, including general purpose lanes, HOV lanes, peak period lanes, auxiliary lanes, or lanes through grade-separated interchanges as project types that would likely lead to a measurable and substantial increase in induced vehicle travel. Further, the Technical Advisory acknowledges that addition of capacity on local or collector streets, provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit would not likely lead to a substantial or measurable increase in vehicle travel, and therefore generally should not require an induced travel analysis (Technical Advisory, pp. 20, 21).

The Project would construct site adjacent local streets, collectors, and arterials, including sidewalk and bicycle lanes consistent with the City of Ontario Policy Plan Mobility Element. The construction of these local facilities consistent with the Policy Plan Mobility Element is not likely to significantly alter regional or interregional travel.

Project job creation would not exceed employment projections developed under the Policy Plan. Growth resulting from Project job creation is anticipated under the Policy Plan, and such growth would not result in environmental impacts not already considered and addressed in the Policy Plan EIR. Growth resulting from or facilitated by Project infrastructure improvements is anticipated under the Policy Plan, and environmental impacts attributable to such growth, including but not limited to VMT effects, is considered and addressed in the Policy Plan EIR.

Additionally, the Policy Plan EIR notes that while the City of Ontario is jobs-rich, the subregion as a whole is housing-rich. The Policy Plan EIR concludes that buildout of the Ontario Plan would act to improve the job/housing balance within the sub-region. Creation of additional jobs as the result of the Project would tend to collocate employment and housing opportunities and would act to reduce sub-regional employment-based VMT.

It is further noted that the Project would generate approximately one-half of the total daily trips that would result from development of the subject site under the site’s current Policy Plan Land Use designations (see Table 4.2-7). A comparable reduction in total VMT could be expected.

**Table 4.2-7
Trip Generation Comparison-Existing Policy Plan Land Uses vs. Project**

| Existing Policy Plan Land Uses | | | Project | |
|--|-------------------------------------|---------------|--|---------------|
| Policy Plan Land Use Designation | ITE Land Use Metric | ADT (PCE) | Policy Plan Land Use Designation | ADT (PCE) |
| Business Park: 314.7 acres; 8,225,000 sf | ITE Land Use 130 3.37 Trips/TSF | 27,718 | Business Park: 55.1 acres; 1,441,000 sf | 5,842 |
| Office Commercial: 43.3 acres; 1,414,600 sf | ITE Land Use 710 9.74 Trips/TSF | 13,778 | N/A | --- |
| General Commercial: 18.3 acres; 318,900 sf | ITE Land Use 820 33.37 Trips/TSF | 10,642 | N/A | --- |
| N/A | --- | --- | Industrial: 292.8 acres; 7,014,000 sf | 19,356 |
| N/A | --- | --- | Circulation: 28.4 Acres | --- |
| Total ADT | --- | 52,138 | Total ADT | 25,198 |

Sources: Policy Plan Land Use Element; ITE Trip Generation Manual, 10th Edition (2017); Merrill Commerce Center Specific Plan.

Notes:

1. Maximum building square footage calculated by multiplying the total acreage of each land use by the anticipated floor area ratio (FAR) for the respective land use designation per Policy Plan Table LU-02 Land Use Designations Summary Table – Industrial FAR = 0.55; Business Park FAR = 0.60; General Commercial FAR = 0.040; Office Commercial FAR = 0.75.

2. No Project Alternative Land Use Trip Generation Metrics from ITE Trip Generation Manual, 10th Edition (2017). ITE Land Use Codes: 130-Industrial Park; 710 General Office, 820 Shopping Center.

3. Project Trip Generation from *Merrill Commerce Center Specific Plan, Traffic Impact Analysis*, City of Ontario (Urban Crossroads, Inc.) June 30, 2020.

4. ADT = Average Daily Trips, TSF = Thousand Square Feet

Environmental impacts of VMT generated under the current Policy Plan Land Uses are reflected in related Policy Plan EIR Traffic, Air Quality, Greenhouse Gas/Global Climate Change, and Vehicular-source Noise analyses. The Project would result in a comparative reduction in total ADT and VMT when compared to ADT and VMT generated by the site’s current Policy Plan Land Uses. Additionally, roadway improvements proposed by

the Project are consistent with and would not provide capacity beyond that reflected in the Policy Plan Mobility Element.

While roadway improvements associated with the Project may facilitate vehicular travel within the City and surrounding areas, total VMT and environmental impacts of such travel would be comparatively reduced when compared with VMT and VMT-related impacts already considered and addressed in the Policy Plan EIR.

4.2.2 OTHER TRANSPORTATION TOPICS

Potential Impact: *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.*

City of Ontario Policy Plan

City of Ontario programs, plans, and policies addressing the circulation system are established under the City of Ontario Policy Plan. Project consistency with applicable provisions of the Policy Plan is summarized at Table 4.2-8. As provided for under CEQA, the analysis presented here considers program, plan, and policy inconsistencies that could result in potentially significant environmental impacts. As a matter of law, the Project would be required to comply with City ordinances addressing the Study Area circulation system.

**Table 4.2-8
City of Ontario Policy Plan Consistency Analysis**

| MOBILITY ELEMENT | |
|---|--|
| M1 roadway | |
| Goal M1 A system of roadways that meets the mobility needs of a dynamic and prosperous Ontario. | |
| Policies | Remarks |
| M1-1 | <p><i>Roadway Design and Maintenance.</i> We require our roadways to:</p> <ul style="list-style-type: none"> • Comply with federal, state and local design and safety standards. • Meet the needs of multiple transportation modes and users. • Handle the capacity envisioned in the Functional roadway Classification Plan. • Maintain a peak hour Level of Service (LOS) E or better at all intersections. |
| | <p>Consistent. Project roadway designs and all proposed improvements would conform with the City’s <i>Master Plan of Streets and Highways</i>, City design standards and applicable federal/state design and safety standards. City design review processes would ensure compliance with all applicable standards.</p> <p>LOS Policies: LOS deficiencies are no longer impacts under CEQA. For informational purposes and use by the City, a TIA addressing potential LOS deficiencies has been prepared and is included at EIR Appendix C.</p> |

Table 4.2-8
City of Ontario Policy Plan Consistency Analysis

| MOBILITY ELEMENT | | |
|---|---|--|
| | <ul style="list-style-type: none"> Be compatible with the streetscape and surrounding land uses. Be maintained in accordance with best practices and our Right-of-Way Management Plan. | <p>Streetscape design concepts implemented pursuant to the <i>Merrill Commerce Center Specific Plan</i> establish compatible continuation of existing perimeter streetscapes. All public roadways would be maintained in accordance with City requirements to include implementation of City Best Management Practices and City Right-of-Way Management Plan.</p> <p>On this basis, the Project is considered consistent with Policy M1-1.</p> |
| M1-2 | <i>Mitigation of Impacts.</i> We require development to mitigate its traffic impacts. | <p>Consistent. Potentially significant VMT impacts are addressed via the mitigation measures presented in this Section. LOS deficiencies are no longer impacts under CEQA. Improvements addressing LOS deficiencies are identified in the Project TIA.</p> <p>On this basis, the Project is considered consistent with Policy M1-2.</p> |
| M1-3 | <i>Roadway Improvements.</i> We work with Caltrans, SANBAG and others to identify, fund and implement needed improvements to roadways identified in the Functional roadway Classification Plan. | <p>Consistent. Please refer to remarks at Policies M1-1, M1-2.</p> |
| M1-4 | <i>Adjacent Jurisdictions.</i> We work with neighboring jurisdictions to meet our level of service standards at the City limits. | <p>Consistent. Potentially significant VMT impacts are addressed via the mitigation measures presented in this Section. LOS deficiencies are no longer impacts under CEQA. Improvements addressing LOS deficiencies are identified in the Project TIA.</p> <p>On this basis, the Project is considered consistent with Policy M1-4.</p> |
| M2 Bicycle and Pedestrians | | |
| Goal M2 A system of trails and corridors that facilitate and encourage bicycling and walking. | | |
| Policies | | Remarks |
| M2-1 | <i>Bikeway Plan.</i> We maintain our <i>Multipurpose Trails & Bikeway Corridor Plan</i> to create a comprehensive system of on- and off-street bikeways that connect residential areas, businesses, schools, parks, and other key destination points. | <p>Consistent. Bikeway improvements would be implemented consistent with the <i>City of Ontario Multipurpose Trails & Bikeway Corridor Plan</i> and provisions of the <i>Merrill Commerce Center Specific Plan</i>.</p> <p>On this basis, the Project is considered consistent with Policy M2-1.</p> |
| M2-3 | <i>Pedestrian Walkways.</i> We require walkways that promote safe and convenient travel between residential areas, businesses, schools, parks, recreation areas, and other key destination points. | <p>Consistent. Pedestrian paths would be provided within the Project site and along the Project perimeter consistent with City standards and provisions of the <i>Merrill Commerce Center Specific Plan</i>.</p> <p>On this basis, the Project is considered consistent with Policy M2-3.</p> |
| M3 Public Transit | | |
| Goal M3 A public transit system that is a viable alternative to automobile travel and meets basic transportation needs of the transit dependent. | | |
| Policies | | Remarks |
| M3-2 | <i>Transit Facilities at New Development.</i> We require new development to provide transit facilities, such as bus shelters, transit bays and turnouts, as necessary. | <p>Consistent. Developers of the Project would coordinate transit service options and provision of transit facilities with the local mass transit provider (Omnitrans). Adequate area for any bus turnouts and bus amenities would be provided consistent with City and Omnitrans requirements.</p> |

Table 4.2-8
City of Ontario Policy Plan Consistency Analysis

| MOBILITY ELEMENT | |
|---|---|
| | On this basis, the Project is considered consistent with Policy M3-2. |
| M4 Goods Movement | |
| Goal M4 An efficient flow of goods through the City that maximizes economic benefits and minimizes negative impacts. | |
| Policies | Remarks |
| M4-1 | <p><i>Truck Routes.</i> We designate and maintain a network of City truck routes that provide for the effective transport of goods while minimizing negative impacts on local circulation and noise-sensitive land uses, as shown in the Truck Routes Plan.</p> <p>Consistent. Trucks accessing the Project site would utilize the City's designated truck routes. Vehicular-source noise and air quality impacts are evaluated within this EIR, and mitigation is proposed for those impacts determined to be potentially significant, thereby minimizing negative impacts on local circulation and noise-sensitive land uses.</p> <p>On this basis, the Project is considered consistent with Policy M4-1.</p> |
| M4-2 | <p><i>Regional Participation.</i> We work with regional and sub-regional transportation agencies to plan and implement goods movement strategies, including those that improve mobility, deliver goods efficiently and minimize negative environmental impacts.</p> <p>Consistent. The Project land uses take advantage of proximate available regional transportation systems acting to facilitate mobility, goods movement, and goods delivery on a local, sub-regional and regional basis. The Project would not interfere with or otherwise obstruct City efforts and actions to coordinate regional and sub-regional plans and strategies facilitating mobility, goods movement, and goods delivery.</p> <p>On this basis, the Project is considered consistent with Policy M4-2.</p> |
| M4-4 | <p><i>Environmental Considerations.</i> We support efforts to reduce/eliminate the negative environmental impacts of goods movement.</p> <p>Consistent. The Merrill Commerce Center Specific Plan Design Guidelines and Development Standards globally act to minimize potential environmental impacts of goods movement associated with the Project. Mitigation proposed in this further reduces potentially adverse impacts resulting from Project goods movement activities.</p> <p>Please refer also to remarks at Policies M4-1, M4-2.</p> |
| LU5 Airport Planning | |
| Goal LU5 Integrated airport systems and facilities that minimize negative impacts to the community and maximize economic benefits. | |
| Policies | Remarks |
| LU5-3 | <p><i>Airport Impacts.</i> We work with agencies to maximize resources to mitigate the impacts and hazards related to airport operations.</p> <p>Consistent: The Project does not propose or require amendment to the Ontario International Airport Land Use Compatibility Plan (ONT ALUCP). Nor would the Project otherwise interfere or obstruct the City's administration and maintenance of the ONT ALUCP. The City fulfills its state Airport Land Compatibility requirements pursuant to the "Alternative Process." Under the Alternative Process, affected agencies are responsible for conducting their own consistency evaluations for new development and/or major land use actions within their portions of the ONT Airport Influence Area (AIA). In this regard, the City of Ontario is responsible for ALUCP consistency evaluations/determinations for the Project.</p> <p>Land uses and development that would be realized pursuant to the Project would conform to all applicable provisions and restrictions of the ONT ALUCP as determined by the City. In this latter regard, all future development within the Specific Plan area would be required to comply with development standards and design guidelines established under, as well as the applicable requirements of the City</p> |

**Table 4.2-8
City of Ontario Policy Plan Consistency Analysis**

| MOBILITY ELEMENT | |
|------------------|--|
| | <p>of Ontario Development Code (please refer to City of Ontario Municipal Code Title 9, Development Code, Chapter 1 Zoning and Land Use Requirements, Sec. 9-1.2980. Airport safety zones. In combination, compliance with provisions of the Meredith SPA and the City Development Code would preclude any potential inconsistencies with the ONT ALUCP.</p> <p>Discussion of Project consistency with the Chino Airport Land Use Compatibility Plan (ALUCP) is presented at EIR Section 4.6 <i>Hazards/Hazardous Materials</i>. Pursuant to EIR Mitigation Measure 4.6.9, the Project Applicant would be required to document compliance with applicable provisions of the Riverside County ALUC and Riverside County ALUCP Policy Document, including the findings of any FAA airspace review.</p> <p>On this basis, the Project is considered consistent with Policy LU5-3.</p> |
| LU5-5 | <p><i>Airport Compatibility Planning for ONT.</i> We create and maintain the Airport Land Use Compatibility Plan for ONT.</p> <p>Consistent: Please refer to remarks at Policy LU5-3.</p> |
| LU5-7 | <p><i>ALUCP Consistency with Land Use Regulations.</i> We comply with state law that requires general plans, specific plans and all new development be consistent with the policies and criteria set forth within an Airport Land Use Compatibility Plan for any public use airport.</p> <p>Consistent: Please refer to remarks at Policy LU5-3.</p> |

Sources: Goal and Policy statements from the City of Ontario Policy Plan; remarks by Applied Planning, Inc.

Prior to the issuance of Building Permits, the City would review the final Project designs to ensure consistency with City Policy Plan circulation system programs, plans and policies. Consistency with applicable City ordinance requirements is required as a matter of law.

The Project does not propose facilities or activities that would otherwise potentially conflict with City circulation system programs, plans, policies and ordinances.

SCAG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) Consistency

Table 4.2-9 summarizes the Project’s consistency with the goals of the 2016 – 2040 SCAG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).

**Table 4.2-9
Consistency with SCAG RTP/SCS Goals**

| RTP/SCS Goals | Remarks |
|--|---|
| <i>Goal 1:</i> Align the plan investments and policies with improving regional economic development and competitiveness. | Consistent: The Project proposes contemporary urban uses, providing an opportunity for development investment on currently underutilized land. |
| <i>Goal 2:</i> Maximize mobility and accessibility for all people and goods in the region. | Consistent: The transportation network in the Project area has been developed and maintained to meet local and regional transportation demands, and to ensure efficient mobility. Local and regional transportation, traffic, and transit are discussed in this Section. |
| <i>Goal 3:</i> Ensure travel safety and reliability for all people and goods in the region. | Consistent: The Project TIA identifies improvements that would promote and facilitate the safe movement of people and goods. All transportation modes within the Project area would be required to comply with incumbent regulatory safety standards. |
| <i>Goal 4:</i> Preserve and ensure a sustainable regional transportation system. | Consistent: The Project TIA assesses all roadways and identifies required improvements to the existing transportation network. The Project would offset its incremental LOS impacts by construction of required improvements and through payment of requisite transportation/traffic impact fees. In combination, these measures preserve and ensure sustainable local and regional transportation systems. VMT impacts would be reduced to the extent feasible through implementation of Transportation Demand Management (TDM) measures. |
| <i>Goal 5:</i> Maximize the productivity of our transportation system. | Consistent: Local and regional transportation systems would be improved and maintained to encourage their efficiency and productivity. The City oversees the improvement and maintenance of all aspects of the public right-of-way on an as-needed basis. |
| <i>Goal 6:</i> Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking). | Consistent: The Project would accommodate and would not interfere with existing or planned bicycle facilities and improvements. The Project would provide a pedestrian access network that internally links on-site uses to the existing and proposed off-site pedestrian facilities. |
| <i>Goal 7:</i> Actively encourage and create incentives for energy efficiency, where possible. | Consistent: The Project would comply with or surpass incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards). Additional energy efficiency/conservation measures would be implemented pursuant to the Merrill Commerce Center Specific Plan. |
| <i>Goal 8:</i> Encourage land use and growth patterns that facilitate transit and non-motorized transportation. | Consistent: The Project proposes development with proximate access to local and regional transportation facilities. Intensified development of the Project site in combination with existing proximate development acts to focus transit ridership base, thereby supporting existing and future transit opportunities. |

**Table 4.2-9
Consistency with SCAG RTP/SCS Goals**

| RTP/SCS Goals | Remarks |
|--|---|
| <p><i>Goal 9:</i> Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.</p> | <p>Consistent: The City of Ontario is responsible for monitoring of roadways and transit routes to determine the adequacy and safety of these systems. The City and other local and regional agencies and organizations (e.g., Omnitrans, Caltrans, and SCAG) cooperatively manage these systems. Security situations involving roadways and evacuations would be addressed through City emergency response plans.</p> |

Sources: Goal Statements from: 2016–2040 RTP/SCS; Remarks by Applied Planning, Inc.

Level of Significance: Less-Than-Significant.

Potential Impact: *Substantially increase hazards to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access?*

Impact Analysis: To ensure appropriate design and implementation of all Project circulation improvements, the final design of the Project site plan, to include locations and design of proposed driveways, shall be reviewed and approved by the City Traffic Engineer. In addition, representatives of the City’s Police and Fire Departments will review the Project’s plans in regard to emergency access. Efficient and safe operations of the Project would be provided by on-site and localized circulation and intersection improvements to be developed as the Project individual site and building designs are finalized. The City would ensure that all on-site and localized circulation and intersection improvements would be designed and constructed consistent with applicable provisions of the Merrill Commerce Center Specific Plan and pursuant to City site plan and Building Permit review processes and requirements.

Traffic signing and striping would be implemented in conjunction with detailed Project construction plans. Sight distance at each project access point would be reviewed with respect to standard Caltrans and City of Ontario sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

It is also recognized that temporary and short-term traffic detours and traffic disruption could result during Project construction activities. These interim and transient impacts are considered potentially significant for the duration of Project construction activities. Management and control of construction traffic would be addressed through the preparation and submittal of a construction area traffic management plan, to be reviewed and approved by City prior to or concurrent with Project building plan review(s). The Project Construction Area Traffic Management Plan (Plan), also summarized within the EIR Project Description, would identify traffic controls for any street closures, detours, or other potential disruptions to traffic circulation during Project construction. The Plan would also be required to identify construction vehicle access routes, and hours of construction traffic.

The Project would generate passenger car trips and truck trips typical of business park and light industrial uses. As part of established site and Building Permit review processes, the City would require implementation of on-site truck and passenger car travel paths, signing, and traffic controls to ensure that conflicts between trucks and passenger cars are minimized or avoided. Trucks accessing the Project site would use designated truck routes, thereby avoiding or minimizing off-site passenger car/truck traffic conflicts. Land uses proximate to the Project site are planned for, or are being developed with urban uses similar to those proposed by the Project. These uses would generate urban traffic types similar to traffic generated by the Project and would generate traffic that would be incompatible with the Project traffic types.

As supported by the preceding discussions, the potential for the Project to substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or result in inadequate emergency access is considered less-than-significant.

Level of Significance: Less-Than-Significant.

4.3 AIR QUALITY

4.3 AIR QUALITY

Abstract

This Section identifies and addresses potential air quality impacts that may result from construction and operations of the Project. More specifically, the air quality analysis evaluates the potential for the Project to result in the following impacts:

- Conflict with or obstruct implementation of the applicable air quality plan;*
- Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard; or*
- Expose sensitive receptors to substantial pollutant concentrations.*

As discussed in the EIR Initial Study (EIR Appendix A), the Project's potential impacts under the following topic were previously determined to be less-than-significant, and are not further substantively discussed here:

- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.*

On the basis of the analysis presented herein, even after the application of mitigation measures, the Project would cause or result in the following significant and unavoidable air quality impacts:

- *The South Coast Air Basin (SCAB, Basin) encompassing the Project site is designated as non-attainment for ozone, PM₁₀, and PM_{2.5} (VOC and NO_x are both ozone precursors; NO_x is a precursor to PM₁₀/PM_{2.5}). Project operational-source VOC, NO_x, PM₁₀, and PM_{2.5} emissions regional threshold exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone and PM₁₀/PM_{2.5}) for which the Project region is non-attainment. These are cumulatively significant and unavoidable air quality impacts.*
- *Because a change in land use is proposed under the Project, it is assumed that the emissions generated by the Project's proposed land uses are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is conservatively assumed to conflict with the 2016 AQMP. This is a significant and unavoidable impact.*

4.3.1 INTRODUCTION

This Section presents existing air quality conditions and identifies potential air quality impacts resulting from construction and operation of the Project. The information presented in this Section is summarized from: *Merrill Commerce Center Specific Plan, Air Quality Impact Analysis, City of Ontario* (Urban Crossroads, Inc.) January 12, 2020 (Project AQIA); *Merrill Commerce Center Specific Plan, Mobile Source Diesel Health Risk Assessment, City of Ontario* (Urban Crossroads, Inc.) January 12, 2020 (Project HRA); and *Merrill Commerce Center Specific Plan, Construction Health Risk Assessment Memorandum* (Urban Crossroads, Inc.) January 12, 2020 (Project Construction HRA). The Project AQIA, Project HRA, Project Construction HRA and all supporting information, are presented in their entirety at EIR Appendix D.

4.3.2 AIR QUALITY FUNDAMENTALS

Air pollution comprises many substances generated from a variety of sources, both man-made and natural. Industrialization occurring in the twentieth century, and especially activities relying on the burning of fossil fuels, creates air pollution. Most air pollutant contaminants are wasted energy in the form of unburned fuels or by-products of the combustion process. Motor vehicles are by far the most significant source of air pollutants

in urban areas, emitting photochemically reactive hydrocarbons (unburned fuel), carbon monoxide, and oxides of nitrogen. These primary pollutants chemically react in the atmosphere with sunlight and the passage of time to form secondary pollutants such as ozone.

Air pollutants are generally classified as either primary or secondary pollutants. Primary pollutants are generated daily and emitted directly from the source, whereas secondary pollutants are created over time and occur within the atmosphere as chemical and photochemical reactions take place. Examples of primary pollutants include carbon monoxide (CO), oxides of nitrogen (NO₂ and NO), sulfur dioxide (SO₂), particulate matter (PM₁₀ and PM_{2.5}), and various hydrocarbons or reactive organic gases (ROG). Examples of secondary pollutants include ozone (O₃), which is a product of the reaction between NO_x and ROG in the presence of sunlight. Other secondary pollutants include photochemical aerosols.

To aid in the review of discussions presented subsequently in this Section, recurring terms, abbreviations, and acronyms are defined as follows: PPM - Parts per Million; µg/m³ - Micrograms Per Cubic Meter; PM₁₀ - Particulate Matter Less Than 10 Microns In Diameter; PM_{2.5} - Particulate Matter Less Than 2.5 Microns In Diameter.

4.3.2.1 Criteria Air Pollutants

Criteria air pollutants are those air contaminants for which air quality standards currently exist. Currently, state and federal air quality standards exist for ozone, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), suspended particulate matter (PM₁₀ and PM_{2.5}), and lead. California has also set standards for visibility, sulfates, hydrogen sulfide, and vinyl chloride. Evaluated criteria air contaminants, or their precursors, typically also include reactive organic gases (ROG), oxides of nitrogen (NO_x), sulfur oxides (SO_x), and respirable particulate matter (PM₁₀, PM_{2.5}). Pollutant characteristics, mechanisms of pollutant origination and potential health effects of air pollutants are described below.

Carbon Monoxide

Properties and Sources

Carbon monoxide (CO) is a colorless, odorless, toxic gas formed by incomplete combustion of fossil fuels. CO levels tend to be highest during the winter mornings, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest CO concentrations are generally found near congested transportation corridors and intersections. Other sources include aircraft, off-road vehicles, stationary equipment (e.g., fuel-fired furnaces, gas water heaters, fireplaces, gas stoves, gas dryers, charcoal grills), and landscape maintenance equipment such as lawnmowers and leaf blowers.

Human Health Effects

A consistent association between increased ambient CO levels and higher-than-average rates of hospital admissions for heart diseases (such as congestive heart failure) has been observed. Carbon monoxide can cause decreased exercise capacity, and adversely affects conditions with an increased demand for oxygen supply (fetal development, chronic hypoxemia, anemia, and diseases involving the heart and blood vessels). Exposure to CO can cause impairment of time interval estimation and visual function.

Ozone

Properties and Sources

Ozone (O₃) is a highly reactive and unstable gas that is formed when volatile organic compounds (VOC) and oxides of nitrogen (NO_x), which are both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of the pollutant.

Human Health Effects

Short-term exposure to ozone can cause a decline in pulmonary function in healthy individuals including breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue and immunological changes. Additionally, an increase in the frequency of asthma attacks, cough, chest discomfort and headache can result.

A correlation has been reported between elevated ambient ozone levels and increases in daily hospital admission rates and mortality because of long-term ozone exposure. A risk to public health implied by altered connective tissue metabolism and host defense in animals has also been reported.

Oxides of Nitrogen

Properties and Sources

Oxides of nitrogen (NO_x) are integral to the process of photochemical smog production. During combustion, oxygen reacts with nitrogen to produce NO_x. Two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO₂). Natural causal sources or originators of NO_x include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately seven percent of 1990 emissions of NO_x for the United States (EPA 1997). Atmospheric deposition of NO_x occurs when atmospheric or airborne nitrogen is transferred to water, vegetation, soil, or other materials. Acid deposition involves the deposition of nitrogen and/or sulfur acidic compounds that can harm natural resources and materials. The major source of NO_x in the Basin is on-road vehicles. Stationary commercial and service source fuel combustion are other contributors.

Human Health Effects

Exposure to NO_x may alter sensory responses or impair pulmonary function and may increase incidence of acute respiratory disease including infections and respiratory symptoms in children. Difficulty in breathing in healthy individuals as well as bronchitic groups may also occur. NO_x is also a precursor to ozone and PM₁₀/PM_{2.5}. As noted above,

health effects of ground-level ozone include: aggravated asthma; reduced lung capacity; increased respiratory illness susceptibility; increased respiratory and cardiovascular hospitalizations; and premature deaths.

Sulfur Dioxide

Properties and Sources

Sulfur dioxide (SO₂) is a colorless, pungent gas. At levels greater than 0.5 ppm, SO₂ has a strong odor. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that affects acid deposition. Anthropogenic, or human-caused, sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. SO₂ is a precursor to sulfates and PM₁₀.

Human Health Effects

Health effects of SO₂ include higher frequencies of acute respiratory symptoms (including airway constriction in some asthmatics and reduction in breathing capacity leading to severe difficulties) and diminished ventilatory function in children. Extreme exposure can cause lung edema (fluid accumulation), lung tissue damage, and damage to lining the respiratory tract.

Particulate Matter

Properties and Sources

Particulate matter is a generic term that defines a broad group of chemically and physically different particles (either liquid droplets or solids) that can exist over a wide range of sizes. Examples of atmospheric particles include those produced from combustion (diesel soot or fly ash), light (urban haze), sea spray (salt particles), and soil-like particles from re-suspended dust. Fugitive dust is defined as any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly because of human activities (Rule 403, Fugitive Dust, SCAQMD).

Within air quality analyses, particulate matter is categorized by diameter: PM₁₀ and PM_{2.5}. PM₁₀ refers to particulate matter that is 10 microns or less in diameter (1 micron is one millionth of a meter, or one micrometer [μm]). PM_{2.5} refers to particulate matter that is 2.5 microns or less in diameter. The size of particles can determine the residence time of the material in the atmosphere. PM_{2.5} has a longer atmospheric lifetime than PM₁₀ and, therefore, can be transported over longer distances.

Particulate matter originates from a variety of stationary and mobile sources. Stationary sources that generate particulate matter include: fuel combustion for electric utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal and recycling. Mobile or transportation-related sources that generate particulate matter include highway vehicles, non-road vehicles and fugitive dust from paved and unpaved roads.

Human Health Effects

A consistent correlation between elevated ambient PM₁₀ levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed.¹

Diesel Particulate Matter (DPM), a subcategory of particulate matter, is a mixture of many exhaust particles and gases that is produced when an engine burns diesel fuel. Many compounds found in diesel exhaust are carcinogenic, including sixteen compounds that are classified as possibly carcinogenic by the International Agency for Research on Cancer. DPM includes the particle-phase constituents in diesel exhaust. Some short-term (acute) effects of diesel exhaust include eye, nose, throat and lung irritation, as well as coughs, headaches, light-headedness and nausea. Diesel exhaust is a major source of ambient particulate matter pollution, and numerous studies have linked elevated particle levels in the air to increased hospital admission, emergency room visits, asthma attacks,

¹ www.aqmd.gov/docs/default-source/planning/air-quality-guidance/appendix-c.pdf

and premature deaths among those suffering from respiratory problems. DPM in the Basin poses the greatest cancer risk of all identified toxic air pollutants.

Reactive Organic Gases

Properties and Sources

Reactive Organic Gases (ROGs) (also termed Volatile Organic Compounds [VOCs]) are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. It should be noted that there is no state or national ambient air quality standard for ROGs because they are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemical reactions that contribute to the formulation of ozone. ROGs are also transformed into organic aerosols in the atmosphere, which contribute to higher PM₁₀ and lower visibility. The major sources of ROGs in the Basin are on-road motor vehicles and solvent evaporation. ROGs are also an ozone and PM₁₀/PM_{2.5} precursor.

Human Health Effects

As described previously, health effects of ground-level ozone include: aggravated asthma; reduced lung capacity; increased respiratory illness susceptibility; increased respiratory and cardiovascular hospitalizations; and premature deaths.

Benzene is a reactive organic compound and a known carcinogen. Typical sources of benzene emissions include: gasoline service stations (fuel evaporation), motor vehicle exhaust, tobacco smoke, and oil and coal incineration. Benzene is also sometimes employed as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts. It is also used in the manufacture of detergents, explosives, dyestuffs, and pharmaceuticals. Short-term (acute) exposure to high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, unconsciousness can occur. Long-term (chronic) occupational exposure to high doses by inhalation has caused blood disorders, including aplastic anemia and lower levels of red blood cells.

4.3.3 SETTING

4.3.3.1 Local and Regional Climate

The Project site is located in the South Coast Air Basin (SCAB, Basin) within the jurisdiction of SCAQMD. The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino Counties), and the Riverside County portions of the Salton Sea Air Basin and Mojave Desert Air Basin.

The 6,745-square-mile SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bounded by the San Gabriel Mountains to the south and west, the Los Angeles/Kern County border to the north, and the Los Angeles/San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

Regional climate and variations in temperature, wind, humidity, precipitation, and amount of sunshine influence air quality within the SCAB. The annual average temperatures throughout the Basin vary from the low to middle 60s (degrees Fahrenheit). Due to a decreased marine influence, the eastern portion of the SCAB experiences greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This

shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. It should be noted that these effects decrease with distance from the coast.

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB, with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14-½ hours of possible sunshine.

The importance of wind to air pollution is considerable. Wind speed and direction determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas," each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind.

Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the “Catalina Eddy,” a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal areas.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO_x and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

4.3.3.2 Existing Air Quality

Existing air quality is monitored and evaluated in the context of National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). These Standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. For further information regarding NAAQS and CAAQS currently in effect, please refer to the Project Air Quality

Impact Analysis, Table 2-2, *Ambient Air Quality Standards*. NAAQS and CAAQS can also be accessed at: <http://www.arb.ca.gov/research/aaqs/aaqs.htm>. Determination of whether a region's air quality is healthful or unhealthful is established by comparing sampled air contaminant levels to the state and federal standards.

Regional Air Quality

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the Basin. Attainment status for Basin air pollutants is based on monitored conformance with applicable CAAQS and/or NAAQS. SCAB attainment status reflecting current (2013) criteria pollutant monitoring data is summarized at Table 4.3-1.

Table 4.3-1
SCAB Criteria Pollutant Attainment Status

| Criteria Pollutant | State Designation | Federal Designation |
|----------------------------------|---------------------------|---------------------------|
| O ₃ – 1-hour standard | Nonattainment | -- |
| O ₃ – 8-hour standard | Nonattainment | Nonattainment |
| PM ₁₀ | Nonattainment | Attainment |
| PM _{2.5} | Nonattainment | Nonattainment |
| CO | Attainment | Unclassifiable/Attainment |
| NO ₂ | Attainment | Unclassifiable/Attainment |
| SO ₂ | Unclassifiable/Attainment | Unclassifiable/Attainment |
| Pb* | Attainment | Unclassifiable/Attainment |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Notes: *The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

Local Air Quality

Proximate monitoring stations providing local ambient air quality data for this analysis are listed below.

- SCAQMD CA-60 Near Road monitoring station (approximately 2.86 miles northerly of the Project site) is the nearest monitoring station providing data for NO₂ and PM_{2.5}.

- SCAQMD I-10 Near Road monitoring station (approximately 7.39 miles northeasterly of the Project site) is the nearest monitoring station providing data for CO.
- SCAQMD Pomona/Walnut Valley (SRA 10) monitoring station (approximately 8.64 miles northwesterly of the Project site) is the nearest monitoring station providing data for O₃.
- SCAQMD Corona/Norco Area monitoring station (approximately 4.92 miles southeasterly of the Project site) is the nearest monitoring station providing data for PM₁₀.

The most recent three years of available air quality monitoring data is presented at Table 4.3-2. Data for SO₂ has been omitted from Table 4.3-2 as attainment is regularly met in the South Coast Air Basin and few monitoring stations record SO₂ concentrations.

**Table 4.3-2
Area Air Quality Monitoring Summary 2016-2018**

| Pollutant Standards | | Year | | |
|--|-------------|-------|-------|-------|
| | | 2016 | 2017 | 2018 |
| O₃ | | | | |
| Maximum Federal 1-Hour Concentration (ppm) | | 0.127 | 0.147 | 0.112 |
| Maximum Federal 8-Hour Concentration (ppm) | | 0.092 | 0.114 | 0.092 |
| Number of Days Exceeding State 1-Hour Standard | > 0.09 ppm | 20 | 18 | 7 |
| Number of Days Exceeding State/Federal 8-Hour Standard | > 0.070 ppm | 29 | 38 | 10 |
| CO | | | | |
| Maximum Federal 1-Hour Concentration | > 35 ppm | 1.7 | 4.2 | 1.6 |
| Maximum Federal 8-Hour Concentration | > 20 ppm | 1.3 | 1.3 | 1.3 |
| NO₂ | | | | |
| Maximum Federal 1-Hour Concentration | > 0.100 ppm | 0.089 | 0.093 | 0.079 |
| Annual Average | | 31.0 | 32.1 | 30.4 |

**Table 4.3-2
Area Air Quality Monitoring Summary 2016-2018**

| Pollutant Standards | | Year | | |
|--|--------------------------------|------|------|-------|
| | | 2016 | 2017 | 2018 |
| PM₁₀ | | | | |
| Maximum Federal 24-Hour Concentration ($\mu\text{g}/\text{m}^3$) | > 150 $\mu\text{g}/\text{m}^3$ | 62.0 | 85.1 | 100 |
| Annual Federal Arithmetic Mean ($\mu\text{g}/\text{m}^3$) | | 31.7 | 31.2 | 30.2 |
| Number of Days Exceeding Federal 24-Hour Standard | > 150 $\mu\text{g}/\text{m}^3$ | 0 | 0 | 0 |
| Number of Days Exceeding State 24-Hour Standard | > 50 $\mu\text{g}/\text{m}^3$ | 7 | 7 | 3 |
| PM_{2.5} | | | | |
| Maximum Federal 24-Hour Concentration ($\mu\text{g}/\text{m}^3$) | > 35 $\mu\text{g}/\text{m}^3$ | 55.9 | 67.8 | 47.90 |
| Annual Federal Arithmetic Mean ($\mu\text{g}/\text{m}^3$) | > 12 $\mu\text{g}/\text{m}^3$ | 14.8 | 14.6 | 14.31 |
| Number of Days Exceeding Federal 24-Hour Standard | > 35 $\mu\text{g}/\text{m}^3$ | 7 | 9 | 5 |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

4.3.3.3 Air Quality Improvement Trends

Discussions below have been excerpted and summarized from the Project AQIA. Please refer also to Project AQIA Section 2.9 *Regional Air Quality Improvement*.

The Project lies within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. SCAQMD develops comprehensive plans and regulatory programs for the South Coast Air Basin (SCAB) that will attain federal air quality standards by dates specified by law. SCAQMD is also responsible for meeting State air quality standards by the earliest date achievable.

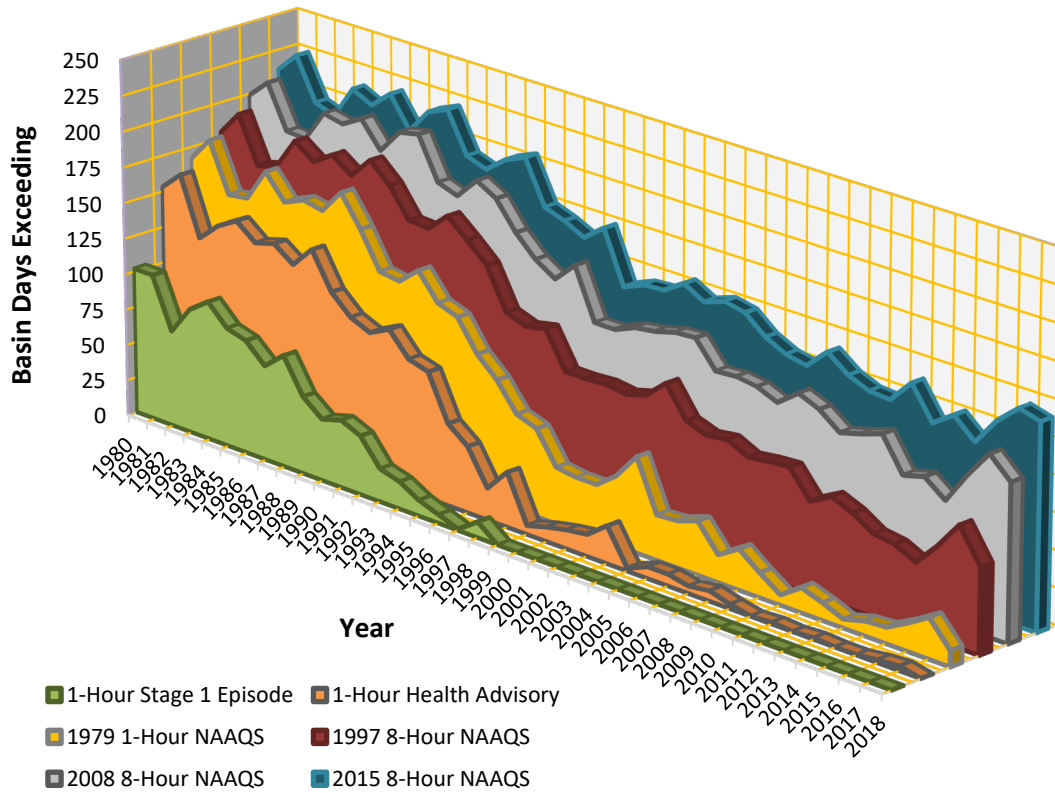
SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in SCAB air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the SCAB. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

SCAQMD has implemented Air Quality Management Plans (AQMPs) providing a regional blueprint for achieving healthful air within the SCAB. The 2012 AQMP attributes the historical improvement in air quality since the 1970's as the direct result of Southern California's comprehensive, multi-year strategy of reducing air pollution from all sources as outlined in its AQMPs.

Emissions of O₃, NO_x, VOC, and CO have been decreasing in the SCAB since 1975 and are projected to continue to decrease through 2020. These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled (VMT) in the SCAB continue to increase, NO_x and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_x emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. O₃ contour maps show that the number of days exceeding the 8-hour NAAQS has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period. However, as shown on Figure 4.3-1, O₃ levels have increased in the past two years due to higher temperatures and stagnant weather conditions. Notwithstanding, O₃ levels in the SCAB have decreased substantially over the last 30 years with the current maximum measured concentrations being approximately one-third of concentrations within the late 70's.

Ambient PM₁₀ and PM_{2.5} levels in the SCAB have also trended downward and show an overall improvement since 1975. Direct emissions of PM₁₀ have remained somewhat constant in the SCAB and direct emissions of PM_{2.5} have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of particulate matter emissions.

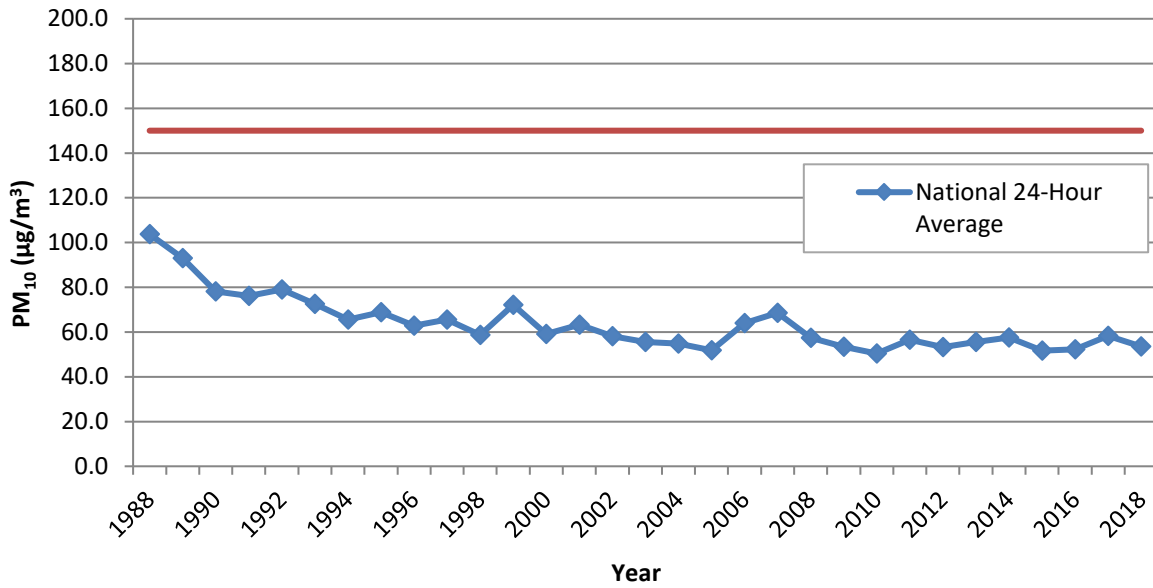
**Figure 4.3-1
SCAB O₃ Trend**



Source: SCAQMD

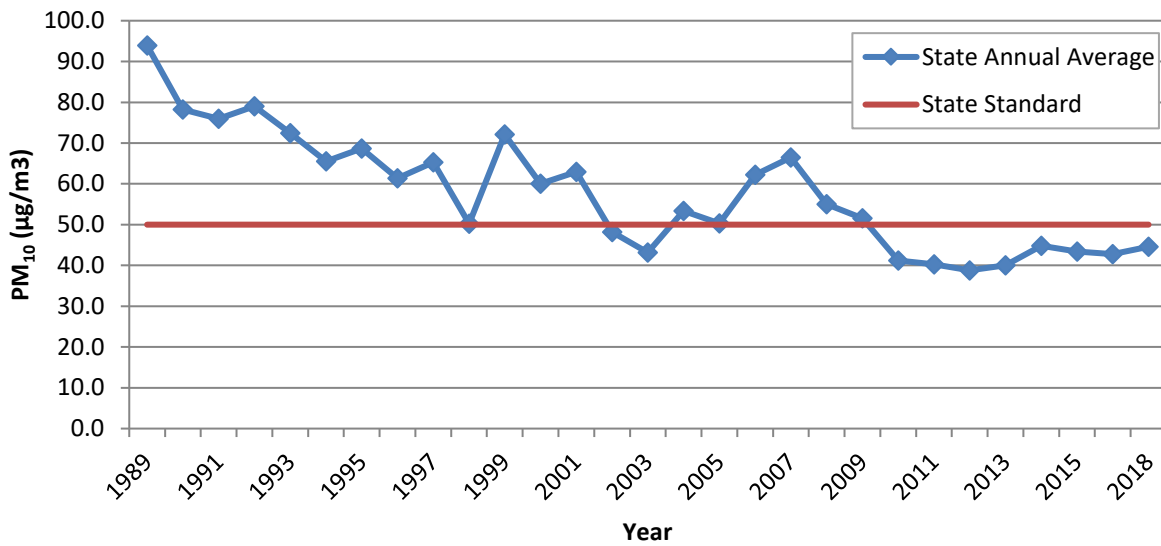
PM₁₀ improvements in the context of federal and state standards are illustrated at Figures 4.3-2, 4.3-3. During the period for which data are available, the 24-hour annual average concentration for PM₁₀ decreased by approximately 48 percent, from 103.7 µg/m³ in 1988 to 53.5 µg/m³ in 2018. Although the values are below the federal standard, it should be noted that there are days within the year where the concentrations continue to exceed the threshold. The annual average for emissions for PM₁₀, have decreased by approximately 53 percent since 1988. Although data in the late 1990's show some variability, this is probably due to the advances in meteorological science rather than a change in emissions. The number of days above the 24-hour PM₁₀ standards has also shown an overall drop.

Figure 4.3-2
SCAB 24-Hour Average Concentration PM₁₀ Trend vs. Federal Standard



Source: CARB

Figure 4.3-3
SCAB Annual Average Concentration PM₁₀ Trend vs. State Standard



Source: CARB

Figures 4.3-4, 4.3-5 present 24-hour and annual average PM_{2.5} concentrations in the SCAB for the period 1999 – 2018. In the context of federal and state standards, PM_{2.5} concentrations have decreased by almost 52 percent and 33 percent respectively. The SCAB is currently designated as nonattainment for the state and federal PM_{2.5} standards.

Figure 4.3-4
SCAB 24-Hour Average Concentration PM_{2.5} Trend vs. Federal Standard

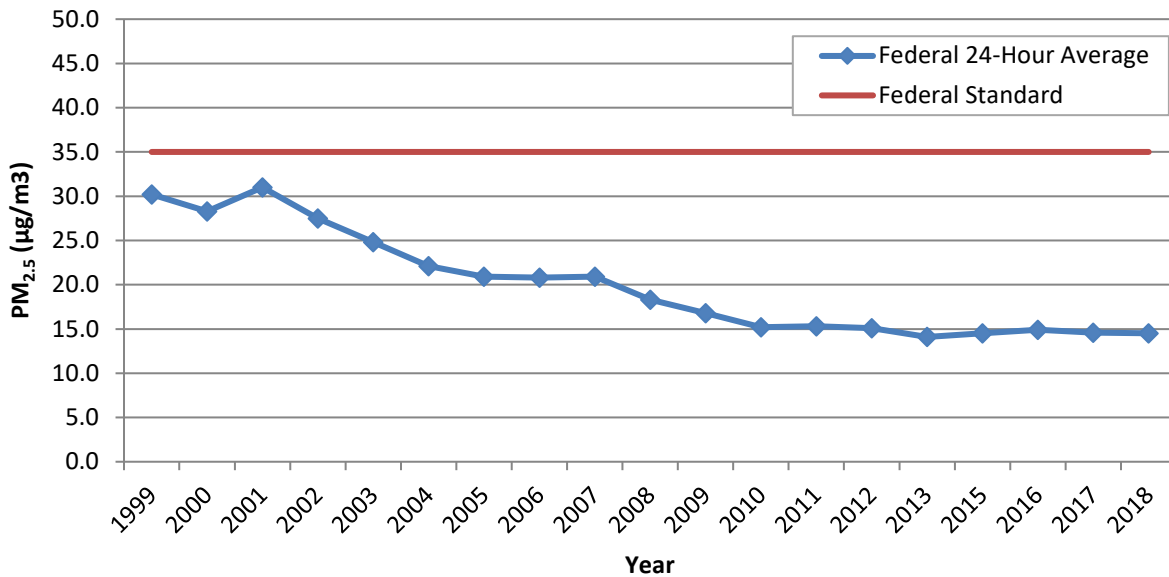
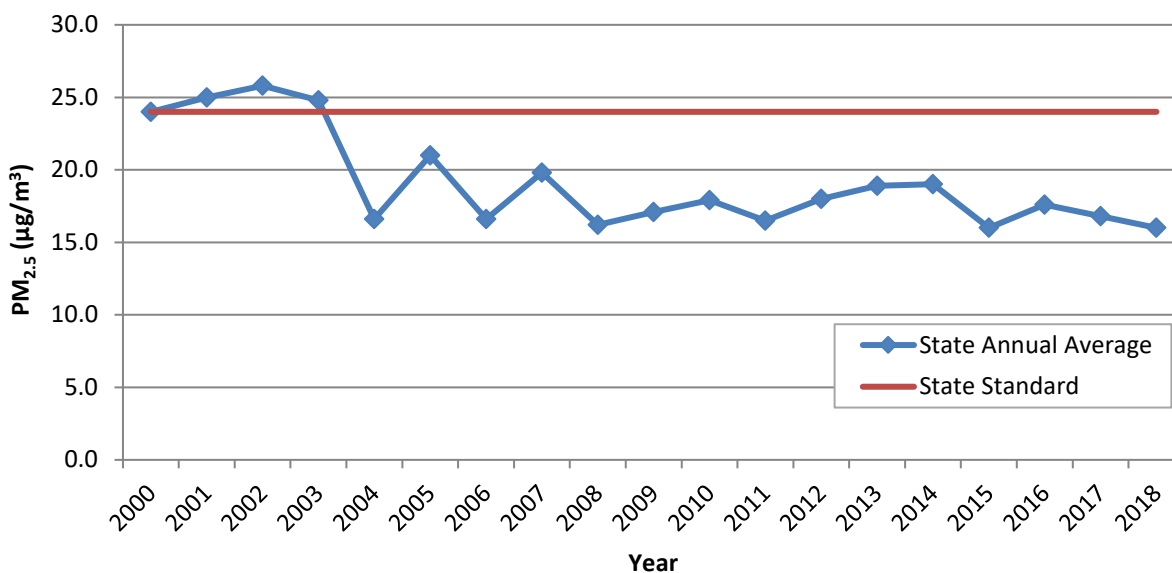


Figure 4.3-5
SCAB 24-Hour Average Concentration PM_{2.5} Trend vs. State Standard



Source: CARB

While the 2012 AQMP PM₁₀ attainment demonstration and the 2015 associated supplemental State Implementation Plan (SIP) submission indicated that attainment of the 24-hour standard was predicted to occur by the end of 2015, it could not anticipate the effect of the ongoing drought on the measured PM_{2.5}.

The 2006 – 2010 base period used for the 2012 attainment demonstration had near-normal rainfall. While the trend of PM_{2.5}-equivalent emission reductions continued through 2015, the severe drought conditions contributed to the PM_{2.5} increases observed after 2012. As a result of the disrupted progress toward attainment of the federal 24-hour PM_{2.5} standard, SCAQMD submitted a request and the EPA approved, in January 2016, a “bump up” to the nonattainment classification from “moderate” to “serious,” with a new attainment deadline as soon as practicable, but not beyond December 31, 2019.

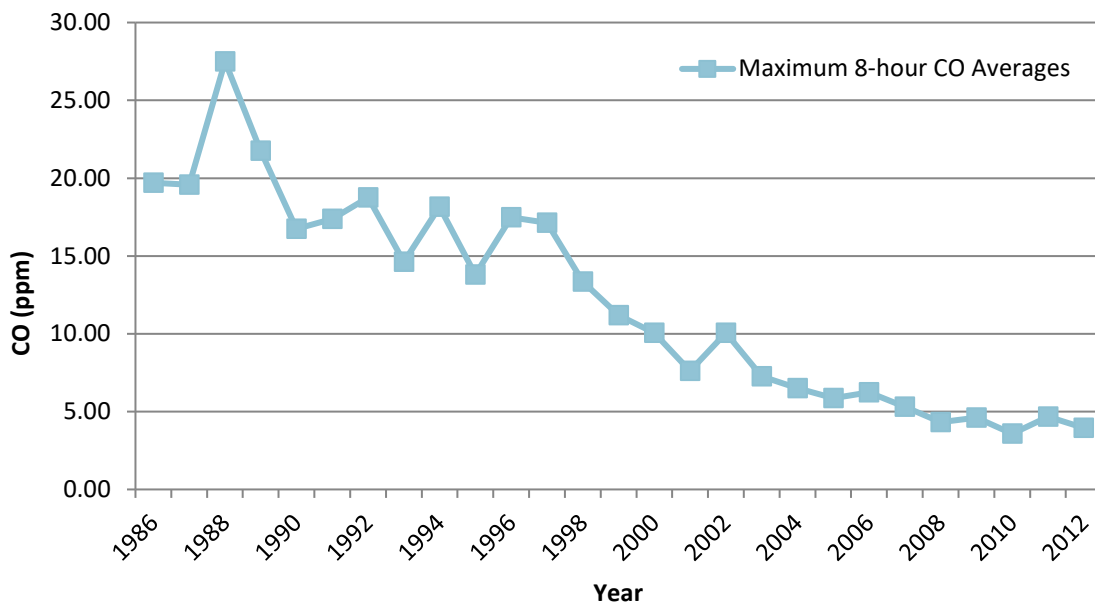
In March 2017, the AQMD released the Final 2016 AQMP. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels. Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) and updated emission inventory methodologies for various source categories.

CO concentrations in the SCAB are presented at Figure 4.3-6. CO concentrations in the SCAB have decreased markedly — a total decrease of more about 80 percent in the peak 8-hour concentration since 1986. The number of CO exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

Part of the control process of the SCAQMD’s duty to greatly improve the air quality in the SCAB is the uniform CEQA review procedures required by SCAQMD’s CEQA

Handbook. The single threshold of significance used to assess Project direct and cumulative impacts has in fact “worked” as evidenced by the track record of the air quality in the SCAB dramatically improving over the course of the past decades. As stated by the SCAQMD, the District’s thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

**Figure 4.3-6
SCAB 24-Hour Average Concentration CO Trend**

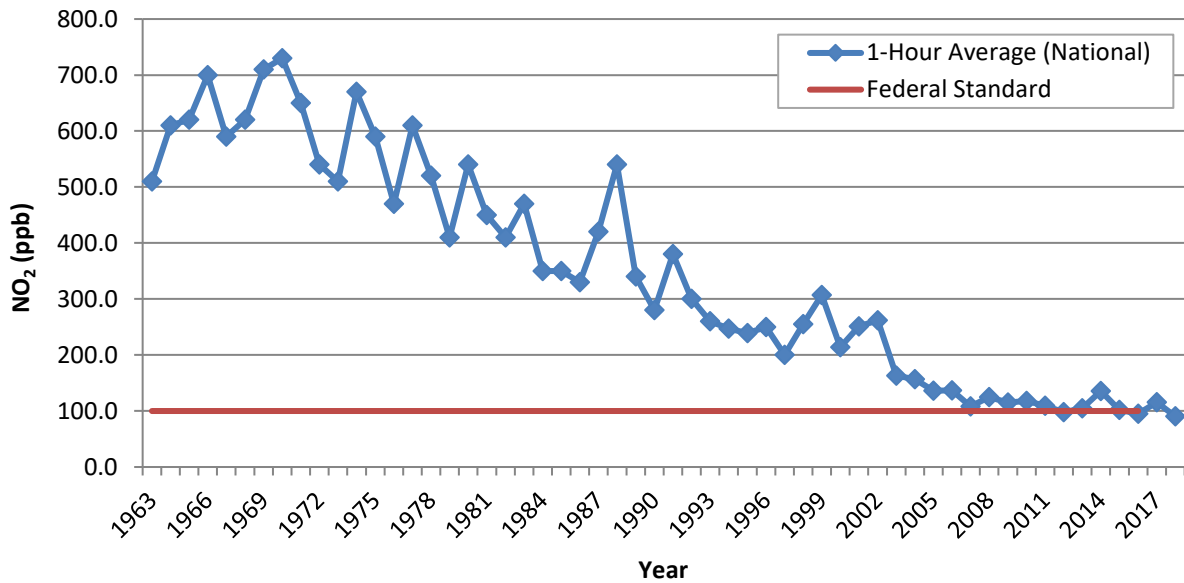


Source: CARB

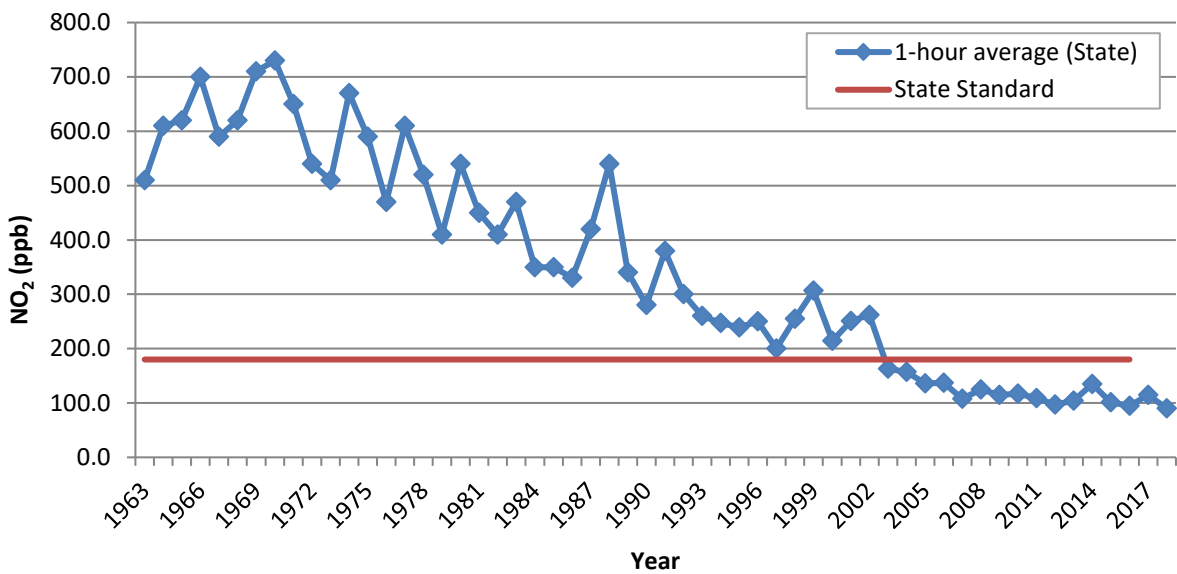
NO₂ data for the SCAB is presented at Figures 4.3-7, 4.3-8. Over the last 50 years, NO₂ values have decreased significantly; the peak 1-hour national and state averages for 2018 is approximately 82 percent lower than what it was during 1963. The SCAB attained the State 1-hour NO₂ standard in 1994, bringing the entire state into attainment. A new State annual average standard of 0.030 parts per million was adopted by the ARB in February 2007. The new standard is just barely exceeded in the SCAQMD. NO₂ is formed from NO_x emissions, which also contribute to O₃. As a result, the majority of the future emission control measures will be implemented as part of the overall ozone control strategy. Many of these control measures will target mobile sources, which account for more than three-

quarters of California’s NO_x emissions. These measures are expected to bring the SCAQMD into attainment of the state NO_x annual average standard.

**Figure 4.3-7
SCAB 1-Hour Average Concentration NO₂ Trend vs. Federal Standard**



**Figure 4.3-8
SCAB 1-Hour Average Concentration NO₂ Trend vs. State Standard**



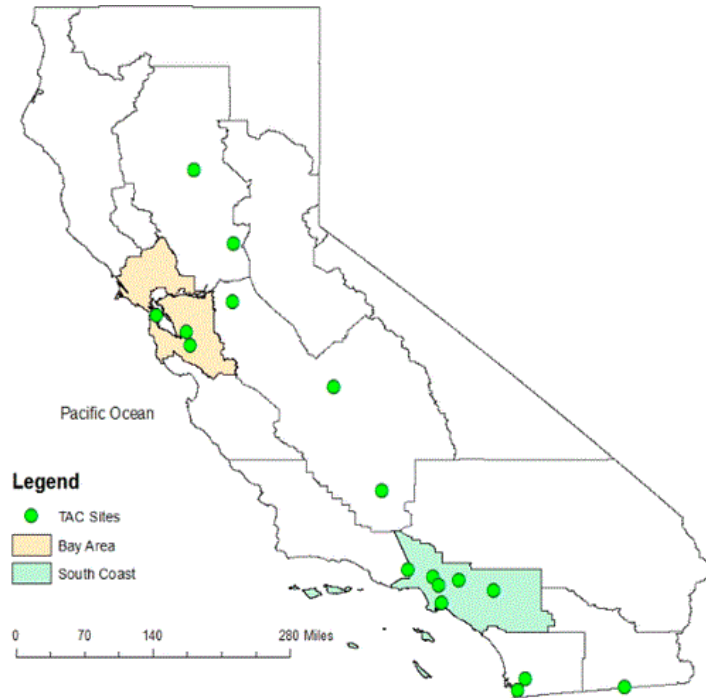
Source: CARB

Toxic Air Contaminants (TACs) Trends

In 1984, as a result of public concern for exposure to airborne carcinogens, CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. *Ambient and Emission Trends of Toxic Air Contaminants in California* (CARB) 2015, indicates that for the period 1990 – 2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly. The seven TACs studied include those that are derived from mobile sources: diesel particulate matter (DPM), benzene, and 1,3-butadiene; those that are derived from stationary sources: perchloroethylene and hexavalent chromium; and those derived from photochemical reactions of emitted VOCs: formaldehyde and acetaldehyde². TACs data was gathered at monitoring sites from both the Bay Area and SCAB indicated at Figure 4.3-9. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

² Ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

**Figure 4.3-9
California Toxic Air Contaminant Data Sites**



Source: CARB

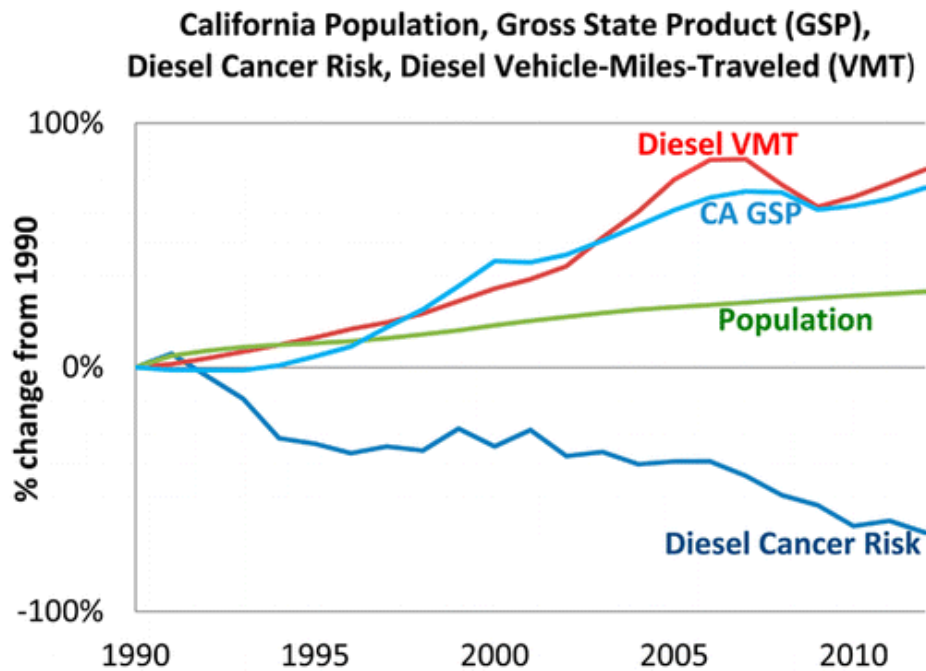
Mobile-Source TACs

CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. In California, light-duty vehicles sold after 1996 are equipped with California's second-generation On-Board Diagnostic (OBD-II) system. The OBD-II system monitors virtually every component that can affect the emission performance of the vehicle to ensure that the vehicle remains as clean as possible over its entire life and assists repair technicians in diagnosing and fixing problems with the computerized engine controls. If a problem is detected, the OBD-II system illuminates a warning lamp on the vehicle instrument panel to alert the driver. This warning lamp typically contains the phrase Check Engine or Service Engine Soon. The OBD-II system also stores important information about the detected malfunction so that a repair technician can accurately find and fix the problem. CARB has recently developed similar OBD requirements for heavy-duty vehicles over 14,000 lbs. CARB's phase II Reformulated Gasoline Regulation (RFG-2), adopted in 1996,

also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the use of reformulated gasoline and motor vehicle regulations.

In 2000, CARB’s Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68% since 2000, even though the state’s population increased 31% and the amount of diesel vehicles miles traveled increased 81%. Please refer to Figure 4.3-10. With the implementation of these diesel-related control regulations, CARB expects a DPM decline of 71% for the period 2000 – 2020.

**Figure 4.3-10
Diesel Particulate Matter and Diesel Vehicle Miles Trends**



Source: CARB

Diesel Regulations

CARB, the Port of Los Angeles (POLA), and the Port of Long Beach (POLB) have adopted several iterations of regulations for diesel trucks that are aimed at reducing DPM. More specifically, CARB Drayage Truck Regulation, CARB statewide On-road Truck and Bus Regulation, and POLA and POLB Clean Truck Programs (CTPs) require accelerated implementation of “clean trucks” into the statewide truck fleet. Under these regulations and programs, older more polluting trucks will be replaced with newer, cleaner trucks – with resulting reductions in DPM generated per mile traveled and average statewide DPM emissions for Heavy Duty Trucks. Diesel emissions identified in this analysis overstate future DPM emissions since not all the regulatory requirements are reflected in the analysis modeling.

Cancer Risk Trends

The SCAQMD has initiated a comprehensive urban toxic air pollution study, *Multiple Air Toxics Exposure Study* (MATES) that provides estimated TAC-source cancer risks within the SCAB. The first Multiple Air Toxics Exposure Study was conducted in 1986 – 87 and the findings published in June 1987. In 1997, MATES II quantified the then current magnitude of population exposure risk from existing sources of selected air toxic contaminants. In 1998 CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant.

In 2008, the SCAQMD prepared an update to the MATES II study: MATES III. MATES III estimated that the average excess cancer risk level from exposure to TACs declined by approximately 17% in comparison to the MATES II study.

MATES IV (SCAQMD) 2015, substantiates a further decline in TACs and TAC-source cancer risks when compared to MATES III. MATES IV indicates that diesel particulate is the major contributor to air toxics risk in the SCAB, accounting on average for about 68% of the total. The most dramatic reduction identified in MATES IV is in the level of diesel particulate, which showed 70% reduction in average level measured at the 10 monitoring sites compared to MATES III. The carcinogenic risk from air toxics in the Basin, based on

the average concentrations at the 10 monitoring sites, is 65% lower than the monitored average in MATES III (MATES IV, p. ES-2).

In January 2018, as part of the overall effort to further reduce air toxics exposure in the SCAB, SCAQMD initiated the MATES V Program. MATES V field measurements will be conducted over a one-year period at ten fixed sites (the same sites selected for MATES III and IV) to assess trends in air toxics levels. MATES V will also include measurements of ultrafine particles (UFP) and black carbon (BC) concentrations, which can be compared to the UFP levels measured in MATES IV. SCAQMD has not yet identified completion or publication dates for MATES V.

4.3.4 REGULATORY BACKGROUND

4.3.4.1 Federal Regulations

The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the NAAQS for O₃, CO, NO_x, SO₂, PM₁₀, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the California Air Resource Board (CARB).

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years. The CAA establishes the NAAQS and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward

attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O₃, NO₂, SO₂, PM₁₀, CO, PM_{2.5}, and lead. The NAAQS were amended in July 1997 to include an additional standard for O₃ and to adopt a NAAQS for PM_{2.5}. Table 4.3-1 (previously presented) provides the NAAQS within the Basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NO_x). NO_x is a collective term that includes all forms of nitrogen oxides (NO, NO₂, NO₃) which are emitted as byproducts of the combustion process.

4.3.4.2 California Regulations

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development);
- A District-permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for VOCs, NO_x, CO and PM₁₀. However, air basins may use alternative emission reduction strategies that achieve a reduction of less than five percent per year under certain circumstances.

Title 24 Building Energy Efficiency Standards

California Code of Regulations (CCR) Title 24 Part 6: *Building Energy Efficiency Standards for Residential and Nonresidential Buildings* was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The Title 24 standards

are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas (GHG) emissions. The 2019 update to Title 24 has been adopted by the California Energy Commission (CEC) and became effective on January 1, 2020. The analysis herein reflects compliance with the 2019 Title 24 Standards. The 2019 California Energy Code can be accessed at: <https://codes.iccsafe.org/content/CAEC2019/cover>.

Title 24 California Green Building Standards Code

CCR, Title 24, Part 11: *California Green Building Standards Code* (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2011. CALGreen is updated on a regular basis. The most recent (2019) update to the CALGreen standards became effective January 1, 2020. Local jurisdictions are permitted to adopt more stringent requirements. The analysis herein reflects compliance with the 2019 CALGreen Standards. The 2019 California Green Building Standards Code can be accessed at: <https://codes.iccsafe.org/content/CAGBSC2019/cover>.

4.3.4.3 Regional

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted regional Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. Project consistency with the current (2016) AQMP is provided subsequently within this Section. The 2016 AQMP can be accessed at: <https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp>.

Complementing provisions of the AQMP, SCAQMD Rules control and regulate area-source air pollutants within the SCAB. SCAQMD Rules can be accessed at: <http://www.aqmd.gov/home/rules-compliance/rules>.

4.3.5 STANDARDS OF SIGNIFICANCE

Pursuant to the *CEQA Guidelines* as implemented by the City, air quality impacts would be considered potentially significant if the Project would:

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

4.3.5.1 SCAQMD Thresholds

To determine if a given project would cause a significant effect on air quality, the impact of the project must be determined by examining the types and levels of emissions generated and their impacts on factors that affect air quality. To accomplish this determination of significance, the SCAQMD has established air pollution thresholds against which a proposed project can be evaluated and assist lead agencies in determining if the impacts of a project are significant. If the project's air pollutant emissions exceed applicable SCAQMD thresholds, then the impact should be considered significant. While the final determination of significance thresholds is within the purview of the lead agency, the SCAQMD recommends that its regional and local air quality thresholds for regulated pollutants (summarized below) be employed by lead agencies in determining whether criteria air pollutant emissions impacts generated by construction or operations of a given project are significant.

Regional Thresholds

SCAQMD regional significance thresholds for maximum daily emissions of regulated pollutants are listed at Table 4.3-3. Project emissions exceeding these thresholds would be considered potentially significant.

**Table 4.3-3
Maximum Daily Emissions-Regional Thresholds**

| Pollutant | Construction-source | Operational-source |
|-------------------|---------------------|--------------------|
| NO _x | 100 lbs./day | 55 lbs./day |
| VOC | 75 lbs./day | 55 lbs./day |
| PM ₁₀ | 150 lbs./day | 150 lbs./day |
| PM _{2.5} | 55 lbs./day | 55 lbs./day |
| SO _x | 150 lbs./day | 150 lbs./day |
| CO | 550 lbs./day | 550 lbs./day |
| Lead | 3 lbs./day | 3 lbs./day |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Carbon Monoxide Concentrations (CO “hot spots”) Thresholds

CO “hot spots” are areas of carbon monoxide concentrations exceeding national or state air quality standards. CO hotspots typically occur because of excessive vehicular idling, often associated with traffic backups at underperforming intersections or congested roadway links. SCAQMD also recommends an evaluation of potential localized CO “hot spot” impacts for projects that may adversely affect, or substantially contribute to, level of service impacts along area roadway segments or at area intersections. Based on the SCAQMD’s *CEQA Air Quality Handbook* (1993), a project’s localized CO emissions impacts would be significant if they exceed the following California standards for localized CO concentrations:

- 1-hour CO standard of 20.0 parts per million (ppm);
- 8-hour CO standard of 9.0 ppm.

Localized Significance Thresholds (LSTs)

LSTs represent the maximum localized emissions concentrations that would not cause or contribute to an exceedance of the most stringent applicable national or state ambient air quality standard (NAAQS or CAAQS) at the nearest residence or sensitive receptor. LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}). The SCAQMD states that the Lead Agency may, at the Agency's discretion, employ LSTs as another indicator of significance in air quality impact analyses.

Health Risk Assessment (HRA) Thresholds

Carcinogenic Risks

Pursuant to SCAQMD thresholds, impacts of Toxic Air Contaminants (TACs) are considered potentially significant if a Health Risk Assessment (HRA) shows an increased carcinogenic risk of greater than 10 incidents per million population.

Noncarcinogenic Risks

Noncarcinogenic risks are numerically expressed as a Hazard Index (HI), with a threshold HI of 1.0. Pursuant to SCAQMD thresholds, noncarcinogenic Hazard Indices calculated to be greater than 1.0 are considered potentially significant.

4.3.6 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.3.6.1 Introduction

The following discussions focus on areas where it has been determined that the Project may result in potentially significant air quality impacts, pursuant to comments received through the NOP process, and based on the analysis presented within this Section and included within the EIR Initial Study. As discussed within the Initial Study (EIR Appendix A), the potential for the Project to result in other emissions (such as those leading to odors) adversely affecting a substantial number of people was determined to

be less-than-significant, and is not discussed further within this Section. Please also refer to Initial Study Checklist Item III., *Air Quality*.

4.3.6.2 Impact Statements

Following is an analysis of potential air quality impacts that are expected to occur as a result of the Project. Potential emissions are considered for Project construction and operation. For each topical discussion, potential impacts are evaluated under applicable criteria established above at Section 4.3.5, *Standards of Significance*.

Potential Impact: *Conflict with or obstruct implementation of the applicable air quality plan.*

Impact Analysis: SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to achieve applicable air quality standards. AQMPs are updated regularly to effectively reduce emissions, accommodate growth, and minimize negative fiscal impacts of air pollution control. The current Final 2016 AQMP (2016 AQMP, AQMP) was adopted by the SCAQMD in March 2017.

AQMP Consistency

Criteria for determining consistency with the AQMP are identified at Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD *CEQA Air Quality Handbook* (1993), as listed below. Project consistency with, and support of these criteria is presented subsequently.

- Criterion No. 1: The project under consideration will not result in an increase in the frequency or severity of existing NAAQS/CAAQS air quality violations or cause or contribute to new NAAQS/CAAQS violations; or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- Criterion No. 2: The project under consideration will not exceed the assumptions in the AQMP in 2011 or increments based on the years of Project build-out phase.

Criterion No. 1

The CAAQS and NAAQS cited at Criterion No. 1 comprise SCAQMD Localized Significance Thresholds (LSTs). The Project LST analysis presented subsequently in this Section substantiates that Project construction-source and operational-source emissions would not exceed applicable LSTs. Further, the Project would implement applicable best available control measures (BACMs), and would comply with applicable SCAQMD rules, acting to further reduce potential LST impacts. On this basis, the Project would not result in an increase in the frequency or severity of existing CAAQS/NAAQS air quality violations, or cause or contribute to new violations.

With regard to timely attainment of AQMP air quality standards and AQMP interim emissions reductions, the Project could potentially result in emissions not a reflected and addressed in the AQMP. That is, to allow for development of the Project business park/industrial uses, the Project site Policy Plan [General Plan] Land Use designations would be amended from “Business Park,” “Office Commercial,” and “General Commercial” to “Business Park” and “Industrial.” This change in Land Use designations is not reflected the AQMP. The resulting development could generate emissions not accounted for in the AQMP emissions inventory and could thereby interfere with or obstruct attainment of AQMP air quality standards and AQMP interim emissions reductions. However, as discussed below, the resulting comparative reduction in trip generation resulting from the proposed change in Land Use designations provides an indication that development under the Project Land Uses would likely not result in exceedance of AQMP inventory emissions assumptions.

Trip generation (traffic) is a general proxy that broadly represents relative air quality impacts of development proposals. As indicated at Table 4.3-4, trip generation under the Project Land Uses would likely be reduced when compared to trip generation resulting from development of the site allowed under the site’s current Policy Plan Land Uses. On this basis, it is likely that air quality impacts resulting from the Project would not exceed assumptions reflected in the 2016 AQMP.

**Table 4.3-4
Trip Generation Comparison-Existing Policy Plan Land Uses vs. Project**

| Existing Policy Plan Land Uses | | | Project | |
|--|-------------------------------------|---------------|--|---------------|
| Policy Plan Land Use Designation | ITE Metric | ADT (PCE) | Policy Plan Land Use Designation | ADT (PCE) |
| Business Park: 314.7 acres; 8,225,000 sf | ITE Land Use 130 3.37 Trips/TSF | 27,718 | Business Park: 55.1 acres; 1,441,000 sf | 5,842 |
| Office Commercial: 43.3 acres; 1,414,600 sf | ITE Land Use 710 9.74 Trips/TSF | 13,778 | N/A | --- |
| General Commercial: 18.3 acres; 318,900 sf | ITE Land Use 820 33.37 Trips/TSF | 10,642 | N/A | --- |
| N/A | --- | --- | Industrial: 292.8 acres; 7,014,000 sf | 19,356 |
| N/A | --- | --- | Circulation: 28.4 Acres | --- |
| Total ADT | --- | 52,138 | Total ADT | 25,198 |

Sources: Policy Plan Land Use Element; ITE Trip Generation Manual, 10th Edition (2017); Merrill Commerce Center Specific Plan.

Notes:

1. Maximum building square footage calculated by multiplying the total acreage of each land use by the anticipated floor area ratio (FAR) for the respective land use designation per Policy Plan Table LU-02 Land Use Designations Summary Table – Industrial FAR = 0.55; Business Park FAR = 0.60; General Commercial FAR = 0.040; Office Commercial FAR = 0.75.
2. No Project Alternative Land Use Trip Generation Metrics from ITE Trip Generation Manual, 10th Edition (2017). ITE Land Use Codes: 130-Industrial Park; 710 General Office, 820 Shopping Center.
3. Project Trip Generation from *Merrill Commerce Center Specific Plan, Traffic Impact Analysis, City of Ontario* (Urban Crossroads, Inc.) March 30, 2020.
4. ADT = Average Daily Trips, TSF = Thousand Square Feet

Because a change in land use is proposed under the Project, it is conservatively assumed that the emissions generated by the Project's proposed land uses are not reflected in the 2016 AQMP air quality standards and interim emissions reductions targets. The Project could therefore delay the timely attainment of air quality standards and/or interim emissions reductions specified in the 2016 AQMP.

In conclusion, the Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations. However, because the General Plan Land Use designations reflected in the 2016 AQMP differ from the Land Use designations proposed under the Project, it is assumed that the Project could delay the timely attainment of air quality standards and/or interim emissions reductions specified in the AQMP. Conservatively, and for the purposes of this analysis, the Project is considered to be inconsistent with Criterion No.1.

Criterion No. 2

Criterion No. 2 addresses consistency (or inconsistency) of a given project with approved local and regional land use plans and associated potential AQMP implications. That is, AQMP emissions models and emissions control strategies are based in part on land use data provided by local general plan documentation; and regional plans, which reflect and incorporate local general plan information. Projects that propose general plan amendments may increase the intensity of use and/or result in higher traffic volumes, thereby resulting in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. However, if a given project is consistent with and does not otherwise exceed the growth projections in the applicable local general plan, then that project would be considered consistent with the growth assumptions in the AQMP and would not affect the AQMP's regional emissions inventory for the Basin.

As noted above, the current General Plan Land use designations for the Project site would be amended to allow for the various Project uses. Accordingly, the 2016 AQMP does not reflect the proposed land use designation for the Project site. For this reason, there is the potential for the Project to exceed air quality impact assumptions in the AQMP or increments based on the years of Project build-out phase. Consequently, development of the subject site as proposed by the Project is conservatively assumed to generate emissions not reflected within the current 2016 AQMP regional emissions inventory for the SCAB. On this basis, the Project is considered to be inconsistent with AQMP Consistency Criterion No. 2.

In summary, the Project would be inconsistent with AQMP Criterion No's. 1 and 2, resulting in a determination that impacts in this regard would be considered potentially significant.

Level of Significance: Potentially Significant.

Mitigation Measures: The Project would implement development-specific air quality mitigation measures identified in this analysis, acting to generally reduce the Project's construction-source and operational-source air pollutant emissions. Additionally, the Project Design Features identified at EIR Section 3.4.3.6 which reflect contemporary energy-efficient technologies and operational programs, CALGreen design and performance standards implemented under the Project, and Project compliance with SCAQMD emissions reductions and control requirements act to reduce Project air pollutant emissions generally.

In combination, the Project air quality mitigation measures and Project Design Features identified at EIR Section 3.4.3.6 are consistent with and support overarching AQMP air pollution reduction strategies. Project support of these strategies would globally promote timely attainment of AQMP air quality standards and would bring the Project into conformance with the AQMP to the extent feasible. Further, as discussed herein, trip generation under the Project Land Uses would likely be reduced when compared to trip generation resulting from development of the site allowed under the site's current Policy Plan Land Uses. On this basis, it is likely that air quality impacts resulting from the Project would not exceed assumptions reflected in the 2016 AQMP.

Notwithstanding, because a change in land use is proposed under the Project, it is assumed that the emissions generated by the Project's proposed land uses are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is conservatively assumed to conflict with the 2016 AQMP. *This is a significant and unavoidable impact.*

Level of Significance After Mitigation: *Significant and Unavoidable.*

Potential Impact: *Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal [national] or state ambient air quality standard.*

Impact Analysis:

Overview

The Project area is designated as a non-attainment area for ozone, a non-attainment area for PM₁₀, and a non-attainment area for PM_{2.5}. Germane to these regional non-attainment conditions, the Project-specific evaluation of emissions presented herein indicates that even after application of mitigation Project operational-source VOC, NO_x, PM₁₀, and PM_{2.5} emissions would exceed applicable SCAQMD regional thresholds. The fact that the Project operational-source emissions of VOC, NO_x, PM₁₀, and PM_{2.5} would exceed applicable SCAQMD thresholds indicates that the Project impacts in these regards are significant on an individual basis, and under SCAQMD significance criteria, would therefore also be cumulatively considerable. Project operational-source emissions of the ozone precursors VOC and NO_x; as well as PM₁₀ and PM_{2.5} particulate emissions in exceedance of applicable SCAQMD regional thresholds would result in a cumulatively considerable net increase of in criteria pollutants within the encompassing ozone and PM₁₀/PM_{2.5} non-attainment areas.

The latest SCAQMD/California Air Pollution Control Officers Association (CAPCOA)-approved version of the California Emissions Estimator Model (CalEEMod, v2016.3.2) was utilized to estimate Project-related air pollutant emissions levels. Project emissions levels were then compared to applicable SCAQMD thresholds in order to determine if air quality standards would be violated; or if Project emissions would contribute substantially to existing or projected air quality violations. Unless otherwise noted, CalEEMod default values and assumptions are applied throughout.

Detailed information regarding land uses and development that would be allowed within the Project site is presented within the *Merrill Commerce Center Specific Plan* (T&B Planning, Inc.) September 29, 2020, EIR Appendix B (Specific Plan). The Specific Plan

document in total is incorporated in this EIR by reference. Under the Project Development Concept evaluated in this EIR, the Specific Plan Area would be developed with the following uses:

- **Industrial:** Approximately 6,312,600 square feet of high-cube fulfillment center warehouse use; and approximately 701,400 square feet of high-cube cold storage warehouse use;
- **Business Park:** Approximately 1,441,000 square feet of mixed uses including merchant wholesale, professional services, professional office, warehouse/storage, and research and development.

Total Development: 8,455,000 square feet

The Project would also implement off-site master plan infrastructure (roads, potable water, recycled water, sanitary sewer, storm drains, and fiber optic lines) in support of the Project. Predominantly, off-site areas that would be affected by construction of infrastructure improvements comprise already-disturbed/developed rights-of-way and easements. Should future development proposals proposed within the Specific Plan area, or supporting infrastructure proposed as part of the Project differ substantially from the development concepts analyzed herein, the Lead Agency would comply with CEQA in consideration of those proposals. This EIR in all instances evaluates likely maximum impact scenarios.

Please refer also to EIR Section 3.0, *Project Description* for additional detail regarding Project facilities and operations.

As envisioned under the Specific Plan, the Project would be implemented in 3 Phases – “A,” “B,” and “C” (see EIR Section 3.0, *Project Description*, Figure 3.4-4, *Phasing Concept*). Phase A is anticipated to be completed by 2022, Phase B by 2025, and Phase C by 2026. Phase A includes Planning Areas 4 and 5; Phase B includes Planning Areas 1, 2, 3, and 6; and Phase C includes Planning Areas 1A, 3A, 4A, 5A, and 6A. These Phases may be

developed as subphases and may occur either sequentially or concurrently. Project development sequencing would ultimately respond to market demands and would be contingent on availability of supporting infrastructure. For the purposes of the Project AQIA, Project development is assumed to occur as summarized at Table 4.3-5.

**Table 4.3-5
Project Development Summary by Phase**

| Land Use | Quantity | Units |
|--|------------------|------------|
| Phase A (2022) – Planning Areas 4 & 5 | | |
| PA4: High-Cube Fulfillment Center Warehouse | 642.477 | TSF |
| PA5: High-Cube Fulfillment Center Warehouse | 1,237.523 | TSF |
| PA4/PA5: High-Cube Cold Storage Warehouse | 300.000 | TSF |
| Phase A Total | 2,180.000 | TSF |
| Phase B (2025) – Planning Areas 1, 2, 3, & 6 | | |
| PA1: High-Cube Fulfillment Center Warehouse | 1,293.835 | TSF |
| PA2: High-Cube Fulfillment Center Warehouse | 1,364.441 | TSF |
| PA3: High-Cube Fulfillment Center Warehouse | 673.968 | TSF |
| PA6: High-Cube Fulfillment Center Warehouse | 1,100.356 | TSF |
| PA1-3/PA6: High-Cube Cold Storage Warehouse | 401.400 | |
| Phase B Total | 4,834.000 | TSF |
| Phase C (2026) – Planning Areas 1A, 3A, 4A, 5A, & 6A | | |
| PA1A: Business Park | 598.000 | TSF |
| PA3A: Business Park | 150.000 | TSF |
| PA4A: Business Park | 152.000 | TSF |
| PA5A: Business Park | 293.000 | TSF |
| PA6A: Business Park | 248.000 | TSF |
| Phase C Total | 1,441.000 | TSF |
| Off-Site Infrastructure Construction | | |
| Off-Site Infrastructure | 113.300 | AC |
| Off-Site Infrastructure (Total) | 113.300 | AC |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis (Urban Crossroads, Inc.) January 12, 2020.

Notes: Building area assumptions for each Planning Area are based on maximum planned development as defined by the Specific Plan.

REGIONAL IMPACTS**Construction-Source Air Pollutant Emissions**

Project construction activities (listed below) would generate emissions of CO, VOC, NO_x, SO_x, PM₁₀, and PM_{2.5}. The Project construction schedule by Phase is summarized at Table 4.3-6.

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating
- Off-Site Infrastructure

**Table 4.3-6
Project Construction Schedule by Phase**

| Phase A (2022) | |
|-----------------------|------------------------|
| Activity | Duration (Days) |
| Demolition | 60 |
| Site Preparation | 60 |
| Grading | 100 |
| Building Construction | 450 |
| Paving | 110 |
| Architectural Coating | 110 |
| Phase B (2025) | |
| Demolition | 80 |
| Site Preparation | 80 |
| Grading | 140 |
| Building Construction | 485 |
| Paving | 330 |
| Architectural Coating | 330 |
| Phase C (2026) | |
| Demolition | 30 |

**Table 4.3-6
Project Construction Schedule by Phase**

| | |
|---|-----|
| Site Preparation | 30 |
| Grading | 50 |
| Building Construction | 150 |
| Paving | 75 |
| Architectural Coating | 75 |
| Off-Site Infrastructure Construction | |
| Off-Site Infrastructure Construction | 365 |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Modeled construction-source emissions reflect all construction activities and also account for associated construction worker commutes and vendor deliveries. Maximum daily Project construction-source emissions are summarized at Table 4.3-6. Please refer also to the Project AQIA, Section 3.4 *Construction Emissions* for further details regarding modeling and analysis of Project construction-source emissions.

**Table 4.3-7
Maximum Daily Construction-Source Emissions – Unmitigated (lbs./day)**

| Phase | Pollutant | | | | | |
|--------------------------------|---------------|-----------------|---------------|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
| Summer | | | | | | |
| Phase A | 108.38 | 125.44 | 134.29 | 0.41 | 24.02 | 9.80 |
| Phase B | 90.06 | 148.27 | 182.75 | 0.68 | 44.10 | 14.85 |
| Phase C | 101.21 | 93.34 | 104.99 | 0.31 | 17.56 | 8.60 |
| Winter | | | | | | |
| Phase A | 108.47 | 125.19 | 126.44 | 0.39 | 24.02 | 9.80 |
| Phase B | 90.28 | 147.76 | 167.56 | 0.64 | 44.11 | 14.86 |
| Phase C | 101.29 | 93.18 | 100.90 | 0.30 | 17.56 | 8.60 |
| Maximum Daily Emissions | 108.47 | 148.27 | 182.75 | 0.68 | 44.11 | 14.86 |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | No | No | No | No |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Notes: Timing and sequencing of off-site infrastructure construction is as yet-undefined. Conservatively, off-site infrastructure construction-source emissions has been modeled and added to the maximum construction-source emissions for each Project Phase.

As indicated at Table 4.3-7, unmitigated Project construction-source air pollutant emissions would exceed applicable SCAQMD regional thresholds for VOC and NO_x.

Project construction-source emissions exceedances of the ozone precursors VOC and NO_x could result in a cumulatively considerable net increase of the criteria pollutants ozone, PM₁₀ and PM_{2.5} (NO_x is a precursor to PM₁₀/PM_{2.5}) within the encompassing ozone and PM₁₀/PM_{2.5} non-attainment areas. These are potentially significant impacts.

Level of Significance: *Potentially Significant.* (VOC and NO_x emissions)

Mitigation Measures:

4.3.1 *The Project shall utilize “Super-Compliant” low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD’s Rule 1113. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Alternatively, the applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings.*

4.3.2 *Construction contractors shall ensure that large off-road diesel fueled construction equipment, including but not limited to excavators, graders, rubber-tired dozers, and similar large pieces of equipment be equipped with CARB Tier 4 Compliant engines. If the operator lacks Tier 4 equipment, and Tier 4 equipment is not available for lease or short-term rental within 50 miles of the project site, Tier 3 Compliant or cleaner off-road construction equipment may be utilized.*

Level of Significance After Mitigation: Less-Than-Significant. Table 4.3-8 summarizes Project construction-source emissions after the implementation of Mitigation Measures 4.3.1, 4.3.2. As indicated at Table 4.3-8, with the application of mitigation, maximum daily Project construction-source emissions (including VOC and NO_x emissions) would not exceed applicable SCAQMD regional thresholds and would therefore be less-than-significant. Per SCAQMD criteria, Project-level impacts that are less-than-significant are

not cumulatively considerable. As mitigated, the potential for Project construction-source emissions to result in a cumulatively considerable net increase in criteria pollutants within the encompassing non-attainment areas would be less-than-significant.

Table 4.3-8
Maximum Daily Construction-Source Emissions-Mitigated (lbs./day)

| Phase | Pollutant | | | | | |
|--------------------------------|--------------|-----------------|---------------|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
| Summer | | | | | | |
| Phase A | 27.82 | 51.69 | 153.06 | 0.41 | 20.51 | 6.39 |
| Phase B | 29.29 | 81.46 | 202.02 | 0.68 | 40.99 | 11.96 |
| Phase C | 23.78 | 30.67 | 124.67 | 0.31 | 14.66 | 5.78 |
| Winter | | | | | | |
| Phase A | 27.91 | 51.45 | 145.21 | 0.39 | 20.51 | 6.39 |
| Phase B | 29.52 | 80.94 | 186.83 | 0.64 | 40.99 | 11.96 |
| Phase C | 23.86 | 30.49 | 120.59 | 0.30 | 14.66 | 5.78 |
| Maximum Daily Emissions | 29.52 | 81.46 | 202.02 | 0.68 | 40.99 | 11.96 |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | No | No | No | No | No | No |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Notes: Timing and sequencing of off-site infrastructure construction is as yet-undefined. Conservatively, off-site infrastructure construction-source emissions has been modeled and added to the maximum construction-source emissions for each Project Phase.

Operational-Source Air Pollutant Emissions

Project operational activities associated with the Project would result in emissions of VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. Project operational emissions would be generated by the mobile and stationary/area sources listed below:

- Area Sources (Architectural Coatings, Consumer Products, Landscape/Facilities Maintenance Equipment)
- Building Energy Consumption
- Mobile Sources (Project Traffic)
- On-Site Cargo Handling Equipment (Utility Tractors)
- Transport Refrigeration Units (TRUs)

Please refer also to the Project AQIA, Section 3.5 *Operational Emissions* for further details regarding modeling and analysis of Project operational-source emissions.

Operational Emissions Summary

Maximum daily Project operational-source air pollutant emissions are summarized at Table 4.3-9. Applicable SCAQMD regional significance thresholds are also identified.

**Table 4.3-9
Peak Operational-Source Emissions Summary
Maximum Daily Summer/Winter – Unmitigated (lbs./day)**

| | Pollutant | | | | | |
|--|---------------|-----------------|---------------|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
| <i>Summer Scenario</i> | | | | | | |
| Phase A | | | | | | |
| Area Source | 48.86 | 2.04e-03 | 0.22 | 2.00e-05 | 8.00e-04 | 8.00e-04 |
| Energy Source | 0.53 | 4.81 | 4.04 | 0.03 | 0.37 | 0.37 |
| Mobile Source (Passenger Cars) | 10.63 | 8.71 | 150.84 | 0.44 | 46.96 | 12.59 |
| Mobile Source (Trucks) | 5.83 | 230.27 | 51.36 | 0.93 | 34.86 | 11.31 |
| On-Site Equipment Source | 0.98 | 10.14 | 6.07 | 0.03 | 0.35 | 0.32 |
| TRUs | 1.58 | 12.68 | 19.40 | 0.003 | 0.20 | 0.18 |
| Total Maximum Daily Emissions (Phase A) | 68.41 | 266.62 | 231.94 | 1.43 | 82.74 | 24.78 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | No | No | No | No |
| Phase B | | | | | | |
| Area Source | 108.34 | 4.48e-03 | 0.49 | 4.00e-05 | 1.76e-03 | 1.76e-03 |
| Energy Source | 0.79 | 7.18 | 6.03 | 0.04 | 0.55 | 0.55 |
| Mobile Source (Passenger Cars) | 18.98 | 13.29 | 272.74 | 0.88 | 105.69 | 28.30 |
| Mobile Source (Trucks) | 6.99 | 399.55 | 90.82 | 1.86 | 72.90 | 22.79 |
| On-Site Equipment Source | 1.71 | 13.69 | 12.71 | 0.05 | 0.52 | 0.48 |
| TRUs | 2.09 | 16.82 | 25.74 | 0.004 | 0.27 | 0.24 |
| Maximum Daily Emissions (Phase B only) | 138.90 | 450.54 | 408.54 | 2.84 | 179.93 | 52.37 |
| Total Maximum Daily Emissions (Phase A + Phase B) | 207.31 | 717.16 | 640.48 | 4.27 | 262.67 | 77.14 |

**Table 4.3-9
Peak Operational-Source Emissions Summary
Maximum Daily Summer/Winter – Unmitigated (lbs./day)**

| | Pollutant | | | | | |
|--|---------------|-----------------|---------------|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | YES | No | YES | YES |
| Phase C | | | | | | |
| Area Source | 32.29 | 1.33e-03 | 0.15 | 1.00e-05 | 5.20e-04 | 5.20e-04 |
| Energy Source | 0.10 | 0.94 | 0.79 | 5.64e-03 | 0.07 | 0.07 |
| Mobile Source (Passenger Cars) | 9.01 | 6.06 | 130.57 | 0.43 | 53.69 | 14.37 |
| Mobile Source (Trucks) | 2.12 | 117.13 | 26.75 | 0.57 | 23.83 | 7.42 |
| On-Site Equipment Source | 0.50 | 4.03 | 3.74 | 0.02 | 0.15 | 0.14 |
| Maximum Daily Emissions (Phase C Only) | 44.03 | 128.16 | 162.00 | 1.02 | 77.75 | 22.00 |
| Total Maximum Daily Emissions (Phase A + Phase B + Phase C) | 251.34 | 845.31 | 802.48 | 5.29 | 340.42 | 99.15 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | YES | No | YES | YES |
| Winter Scenario | | | | | | |
| Phase A | | | | | | |
| Area Source | 48.86 | 2.04e-03 | 0.22 | 2.00e-05 | 8.00e-04 | 8.00e-04 |
| Energy Source | 0.53 | 4.81 | 4.04 | 0.03 | 0.37 | 0.37 |
| Mobile Source (Passenger Cars) | 9.69 | 9.13 | 123.70 | 0.40 | 49.96 | 12.59 |
| Mobile Source (Trucks) | 5.48 | 237.56 | 42.78 | 0.94 | 34.80 | 11.28 |
| On-Site Equipment Source | 0.98 | 10.14 | 6.07 | 0.03 | 0.35 | 0.32 |
| TRUs | 1.58 | 12.68 | 19.40 | 0.003 | 0.20 | 0.18 |
| Total Maximum Daily Emissions (Phase A) | 67.11 | 274.33 | 196.21 | 1.39 | 82.68 | 24.75 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | No | No | No | No |
| Phase B | | | | | | |
| Area Source | 108.34 | 4.48e-03 | 0.49 | 4.00e-05 | 1.76e-03 | 1.76e-03 |
| Energy Source | 0.79 | 7.18 | 6.03 | 0.04 | 0.55 | 0.55 |
| Mobile Source (Passenger Cars) | 18.98 | 13.29 | 272.74 | 0.88 | 105.69 | 28.30 |
| Mobile Source (Trucks) | 6.99 | 399.55 | 90.82 | 1.86 | 72.90 | 22.79 |

**Table 4.3-9
Peak Operational-Source Emissions Summary
Maximum Daily Summer/Winter – Unmitigated (lbs./day)**

| | Pollutant | | | | | |
|--|---------------|-----------------|---------------|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
| On-Site Equipment Source | 1.71 | 13.69 | 12.71 | 0.05 | 0.52 | 0.48 |
| TRUs | 2.09 | 16.82 | 25.74 | 0.004 | 0.27 | 0.24 |
| Maximum Daily Emissions (Phase B Only) | 136.59 | 464.07 | 341.35 | 2.76 | 179.78 | 52.31 |
| Total Maximum Daily Emissions (Phase A + Phase B) | 203.70 | 738.40 | 537.56 | 4.15 | 262.46 | 77.06 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | No | No | YES | YES |
| Phase C | | | | | | |
| Area Source | 32.29 | 1.33e-03 | 0.15 | 1.00e-05 | 5.20e-04 | 5.20e-04 |
| Energy Source | 0.10 | 0.94 | 0.79 | 5.64e-03 | 0.07 | 0.07 |
| Mobile Source (Passenger Cars) | 8.24 | 6.34 | 107.53 | 0.39 | 53.69 | 14.37 |
| Mobile Source (Trucks) | 1.95 | 121.06 | 21.71 | 0.57 | 23.79 | 7.40 |
| On-Site Equipment Source | 0.50 | 4.03 | 3.74 | 0.02 | 0.15 | 0.14 |
| Maximum Daily Emissions (Phase C Only) | 43.08 | 132.37 | 133.92 | 0.98 | 77.71 | 21.99 |
| Total Maximum Daily Emissions (Phase A + Phase B + Phase C) | 246.78 | 870.76 | 671.47 | 5.13 | 340.17 | 99.05 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | YES | No | YES | YES |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Level of Significance: Potentially Significant. (VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions)

As indicated at Table 4.3-9, operational-source emissions generated by Project Phase A would exceed SCAQMD regional thresholds for VOC and NO_x. Project Phase A + Phase B operational-source emissions would exceed SCAQMD regional thresholds for VOC, NO_x, CO, PM₁₀, and PM_{2.5}. Project Phase A + Phase B + Phase C operational-source emissions would exceed SCAQMD regional thresholds for VOC, NO_x, CO, PM₁₀, and PM_{2.5}. Project operational-source emissions thresholds exceedances of the ozone

precursors VOC and NO_x, and emissions thresholds exceedances of PM₁₀, and PM_{2.5} could result in cumulatively considerable net increases of the criteria pollutants ozone, PM₁₀, and PM_{2.5} within the encompassing ozone, PM₁₀, and PM_{2.5} non-attainment areas. These are potentially significant impacts.

Operational-source emissions are reduced in part through the Project's conservation/sustainability design features and attributes described at EIR Section, 3.4.3.6 *Project Design Features*, and restated below:

Design features incorporated in the Project would promote efficient use of energy and other resources, further City conservation and sustainability goals and strategies, and act to generally diminish the Project's potential environmental effects. In consultation with the Lead Agency, final designs of Project buildings, site plans, and improvements would incorporate the following features:

- All Project buildings will be LEED Certified;
- Building and site designs will facilitate and incorporate use of renewable energy sources, including roofs structurally designed to support solar photovoltaic (PV) panels;
- Building and site designs will incorporate conduit and infrastructure for electric car chargers;
- Building and site designs will incorporate conduit and infrastructure for electric truck chargers;
- To minimize the potential for on-site truck idling, site plans will be designed to ensure adequate circulation and access for trucks;
- Truck trailer parking areas will be designed and configured to avoid vehicle stacking at the Project site access point and along adjacent streets;
- LED Lighting will be provided throughout the Project (interior and exterior);
- Project grading will be balanced, thereby minimizing potential requirements for truck conveyance of soil import/export;

- Project warehouse designs will provide 40-foot or higher interior clear heights, allowing for greater storage per square foot of building, reducing building footprints, and generally reducing construction material and energy demands;
- Site designs will incorporate pedestrian/bicycle/multi-use paths and supporting amenities;
- The Project Construction and Demolition Waste Management Plan will be designed and implemented to yield a minimum of 90% recycled/salvaged materials.

Project operational-source emissions are further reduced through application of the following mitigation measures.

Mitigation Measures:

- 4.3.3 *Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than five (5) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the City shall conduct a site inspection to ensure that the signs are in place.*
- 4.3.4 *Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the City demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.*
- 4.3.5 *The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations (CCR) Title 24 shall be provided. As agreed to by the*

Applicant and Lead Agency, final designs of Project buildings shall include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations.

4.3.6 *As agreed to by the Applicant and Lead Agency, final Project designs shall provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations.*

4.3.7 *Where transport refrigeration units (TRUs) are in use, electrical hookups shall be installed in order to allow TRUs to use electric standby capabilities.*

4.3.8 *All diesel trucks accessing the Project shall be compliant with the CARB Truck and Bus Regulation 2010 engine emissions standards.*

Level of Significance After Mitigation: Significant and Unavoidable. Mitigation Measures 4.3.3 through 4.3.8 would act to globally reduce Project operational-source emissions. However, there is no way to quantify these reductions in the California Emissions Estimator Model (CalEEMod). This analysis therefore conservatively assumes that mitigated and unmitigated Project operational-source emissions are substantively equal.

In addition to emissions reduction achieved via Measures 4.3.3 through 4.3.8, Transportation Demand Management (TDM) measures implemented as mitigation for transportation VMT impacts would act to generally reduce vehicle-source emissions. The efficacy of TDMs and any resulting emissions reductions would be dependent on as yet-unknown building tenants and final site plan designs. Accordingly, potential emissions reductions resulting from implementation of TDMs are not quantified within this analysis.

Further, the Project operational-source emissions derive predominantly from vehicular sources (96% for NO_x and CO, 99% for PM₁₀ and PM_{2.5}). Neither the Project Applicant nor

the City has any regulatory control over these emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA.

The Project would implement design features acting to reduce operational-source emissions. Mitigation measures identified in this EIR and compliance with all applicable SCAQMD Rules would further reduce Project operational-source emissions. However, even after these implementation of these measures, Project operational-source emissions would still exceed applicable SCAQMD regional thresholds for VOCs, NO_x, CO, PM₁₀, and PM_{2.5}. These are significant and unavoidable impacts. Per SCAQMD criteria, Project-level impacts that are significant and unavoidable are also cumulatively significant and unavoidable.

Based on the preceding, Project operational-source emissions thresholds exceedances of the ozone precursors VOC and NO_x, and emissions thresholds exceedances of PM₁₀, and PM_{2.5} would result in cumulatively considerable net increases of the criteria pollutants ozone, PM₁₀, and PM_{2.5} within the encompassing ozone, and PM₁₀/PM_{2.5} non-attainment areas. *These are cumulatively significant and unavoidable impacts.*

Construction/Operation Emissions Overlap

Per the SCAQMD CEQA Air Quality Handbook (CEQA Handbook), the recommended approach to calculate criteria pollutant emissions generated by development projects is discrete quantification of construction-source and operational-source emissions. Construction-source and operational-source emissions are then each compared to applicable construction and operational thresholds of significance (CEQA Handbook, Chapters 6 and 9). To the City's knowledge, SCAQMD has not formally developed or published combined construction and operational emission significance thresholds (with the exception of its December 5, 2008 adoption of a GHG Significance Threshold for certain projects where SCAQMD is the lead agency). There, the construction emissions are amortized over 30 years and added to the operational emissions. Additionally, SCAQMD did not request assessment of combined construction-source and operational-source emissions in its comments on the Project NOP. Notwithstanding, SCAQMD has recently commented on other CEQA documents, requesting analysis of combined

construction and operational emissions, and comparison of these emissions to applicable operational thresholds³.

Table 4.3-10 summarizes maximum daily emissions for each scenario where Project construction and operation activities have the potential to overlap. Total combined emissions under the overlapping conditions are compared to applicable operational thresholds. It is important to note that overlapping activities and overlapping emissions summarized at Table 4.3-10 would be temporary, and would cease upon completion of each subsequent phase of construction.

Similar to the findings presented above at *Operational Emissions Summary*, the maximum combined overlapping construction and operational emissions would exceed applicable SCAQMD thresholds of significance for emissions of VOC, NO_x, CO, PM₁₀, and PM_{2.5}. However, the combined overlapping totals would *not* exceed the total emissions for peak operational emissions already disclosed at Table 4.3-9, *Peak Operational-Source Emissions Summary*. As such, no new impacts would occur beyond those that have already been identified and no additional mitigation is required.

Table 4.3-10
Construction-Source/Operational-Source Emissions Overlap

| Overlap Scenario 1 (Phase A Operations & Phase B Construction) | | | | | | |
|--|--------------|-----------------|---------------|-----------------|------------------|-------------------|
| Summer | | | | | | |
| | VOC | NO _x | CO | SO ₂ | PM ₁₀ | PM _{2.5} |
| Phase A Operations | 68.41 | 266.62 | 231.94 | 1.43 | 82.74 | 24.78 |
| Phase B Construction | 29.29 | 81.46 | 202.02 | 0.68 | 40.99 | 11.96 |
| Maximum Daily Combined Emissions | 97.70 | 348.08 | 433.96 | 2.11 | 123.73 | 36.74 |

³ "To conservatively analyze a worst-case impact scenario, South Coast AQMD staff recommends that the Lead Agency use its best efforts to identify the overlapping years, combine construction emissions (including emissions from demolition) with operational emissions, and compare the combined emissions to South Coast AQMD's air quality CEQA *operational* thresholds of significance to determine the level of significance . . ." See SCAQMD Comments on Draft Environmental Impact Report (Draft EIR) for the Proposed Nakase Nursery/Toll Brothers Project (SCH No. 2018071035) dated October 3, 2019 (Attachment, Comment #2). <http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/october/ORC190820-03.pdf?sfvrsn=8>

**Table 4.3-10
Construction-Source/Operational-Source Emissions Overlap**

| | | | | | | |
|---|---------------|-----------------------|---------------|-----------------------|------------------------|-------------------------|
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | No | No | No | No |
| Winter | | | | | | |
| Phase A Operations | 67.11 | 274.33 | 196.21 | 1.39 | 82.68 | 24.75 |
| Phase B Construction | 29.52 | 80.94 | 186.83 | 0.64 | 40.99 | 11.96 |
| Maximum Daily Combined Emissions | 96.63 | 355.27 | 383.04 | 2.03 | 123.67 | 36.72 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | No | No | No | No |
| Overlap Scenario 2 (Phase B Operations & Phase C Construction) | | | | | | |
| Summer | | | | | | |
| | VOC | NO_x | CO | SO₂ | PM₁₀ | PM_{2.5} |
| Phase B Operations | 207.31 | 717.16 | 640.48 | 4.27 | 262.67 | 77.14 |
| Phase C Construction | 23.78 | 30.66 | 124.67 | 0.31 | 14.66 | 5.78 |
| Maximum Daily Combined Emissions | 231.09 | 747.82 | 765.15 | 4.58 | 277.33 | 82.92 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | YES | No | YES | YES |
| Winter | | | | | | |
| Phase B Operations | 203.70 | 738.40 | 537.56 | 4.15 | 262.46 | 77.06 |
| Phase C Construction | 23.86 | 30.49 | 120.59 | 0.30 | 14.66 | 5.78 |
| Maximum Daily Combined Emissions | 227.56 | 768.89 | 658.14 | 4.45 | 277.12 | 82.84 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | YES | YES | YES | No | YES | YES |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Potential Impact: *Expose sensitive receptors to substantial pollutant concentrations.*

Impact Analysis: Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered as sensitive receptors. As concluded in the following discussion of Localized Air Quality Impacts, the sensitive receptors nearest the Project site would not be subject to emissions exceeding SCAQMD LSTs. Nor would the Project create or result in localized CO hot spots. The Project HRA

and Project construction HRA, summarized herein, substantiate that the Project would not generate or result in localized concentrations of TACs that would create or result in potentially significant health risks. On this basis, the potential for the Project to expose sensitive receptors to substantial pollutant concentrations is considered less-than-significant.

LOCALIZED IMPACTS

Localized Significance Threshold (LST) Analysis

The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the national and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, the NAAQS/CAAQS establish LSTs.

LSTs were developed in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. More specifically, to address potential Environmental Justice implications of localized air pollutant impacts, the SCAQMD adopted LSTs indicating whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable national or state ambient air quality standard at the nearest residence or sensitive receptor. Though not required, lead agencies may employ LSTs as another indicator of significance in its air quality impact analyses.

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of the project are above or below state standards. In the case of CO and NO₂, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. For the nonattainment pollutants PM₁₀ and PM_{2.5}, background ambient concentrations

already exceed state and/or national standards. LSTs for PM₁₀ and PM_{2.5} are therefore based on SCAQMD Rules 403/1303 (construction-source/operational-source emissions respectively) and are established as an allowable change in concentration. Background concentrations are irrelevant.

Emissions Considered/Methodology

LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}). The Project LST analysis incorporates, and is consistent with, protocols and methodologies established in *Final Localized Significance Threshold Methodology (Methodology)* (SCAQMD, revised July 2008). The Methodology clearly states that “off-site mobile emissions from the Project should NOT be included in the emissions compared to LSTs.” Accordingly, the Project LST analysis considers only “on-site” emissions sources.

Maximum Daily Disturbed-Acreage

The SCAQMD has issued guidance on applying CalEEMod to LST analyses. In this regard, CalEEMod calculates construction emissions (off-road exhaust and fugitive dust) based on the number of equipment hours and the maximum daily site disturbance activity possible for each piece of equipment. It should be noted that the disturbed area per day is representative of a piece of equipment making multiple passes over the same land area. Project on-site construction activities would actively disturb approximately 1.0 acre per day during demolition, 3.5 acres per day during site preparation, and 4.0 acre per day during grading activities. During off-site infrastructure construction, it is estimated that 1.0 acre per day will be disturbed (Project AQIA, p. 56).

Receptors

Localized air quality impacts were evaluated at proximate receptor land uses. Receptors in the Project study area are described below and identified at Figure 4.3-11.

- R1: Located approximately 185 feet north of the Project site, R1 represents an existing residential home at the Gordon Hay Inc. Dairy.
- R2: Location R2 represents vacant unoccupied agricultural land located approximately 151 feet north of the Project site.
- R3: Located approximately 94 feet east of the Project site across Carpenter Avenue, R3 represents existing residential homes at the Tiva Dairy.
- R4: Location R4 represents the existing residential home at 9131 Merrill Avenue, approximately 129 feet southeast of the Project site.
- R5: Located approximately 135 feet south of the Project site (Phase B, Planning Area 2) R5 represents existing residential homes at the J&D Star Dairy.⁴
- R6: Located approximately 142 feet west of the Project site, R6 represents the existing residential home at 14848 Grove Avenue.
- R7: Location R7 represents the existing residential home located approximately 127 feet west of the Project site, across Grove Avenue.
- R8: Located approximately 114 feet west of the Project site, R8 represents the existing residential home at 14544 Grove Avenue.
- R9: Located approximately 257 feet south of the Project site, R9 represents a wholesale use located at 8601 Merrill Avenue.
- A minimum source-receptor distance of 25 meters is assumed when evaluating LST impacts resulting from construction of off-site infrastructure.⁵

⁴ Minimum source – receptor separation under Phase A construction conditions is approximately 1,827 feet.

⁵ The Methodology recognizes that . . . “it is possible that a project may have receptors closer than 25 meters . . .” In these instances, the Methodology notes that LSTs for receptors located at 25 meters should be used.



Figure 4.3-11
Proximate Receptor Locations

Localized Thresholds

The basis for the Localized Emissions Thresholds employed in this analysis is discussed below. Localized emissions thresholds, by Phase and Planning Area (PA) are summarized at Table 4.3-11.

Construction-Source Emissions LSTs

The SCAQMD Screening “Look-Up” Tables were utilized in evaluating construction-source LST impacts. The Look-Up tables identify thresholds at only 1-acre, 2-acre, and 5-acre, increments. Linear regression has been utilized to determine localized significance thresholds for acreages disturbed by Project construction activities (1.0 acre per day during demolition, 3.5 acres per day during site preparation, and 4.0 acres per day during grading activities). Thresholds were then determined by cross-referencing the maximum disturbed acreage with the distance to the nearest potentially affected receptor.

Operational-Source Emissions LSTs

The Project site comprises approximately 376.3 acres. The LST Methodology provides Look-Up tables for sites with an area with daily disturbance of 5 acres or less. For projects that exceed 5 acres, the 5-acre LST Look-Up tables can be used as a screening tool to determine if additional detailed analysis is required. This approach is conservative as it assumes that operational source emissions would be concentrated within a 5-acre area. This screening method would therefore tend to over-estimate rather than under-estimate potential localized impacts. LSTs for a 5-acre site have been used as a screening tool to determine if further detailed analysis of localized Project operational-source emissions is required. Thresholds were determined by cross-referencing the 5-acre operational-source emissions area with the distance to the nearest potentially affected receptor.

**Table 4.3-11
Localized Thresholds Summary**

| Pollutant | Construction | Operations |
|-------------------------------|----------------------------------|-------------------|
| Phase A | | |
| NO _x | 183 lbs/day (Demolition) | 345 lbs/day |
| | 290 lbs/day (Site Preparation) | |
| | 308 lbs/day (Grading) | |
| CO | 1,941 lbs/day (Demolition) | 4,216 lbs/day |
| | 3,422 lbs/day (Site Preparation) | |
| | 3,686 lbs/day (Grading) | |
| PM ₁₀ | 280 lbs/day (Demolition) | 78 lbs/day |
| | 241 lbs/day (Site Preparation) | |
| | 268 lbs/day (Grading) | |
| PM _{2.5} | 141 lbs/day (Demolition) | 41 lbs/day |
| | 160 lbs/day (Site Preparation) | |
| | 163 lbs/day (Grading) | |
| Phase B (P.A. 1, 2, 3) | | |
| NO _x | 134 lbs/day (Demolition) | 287 lbs/day |
| | 236 lbs/day (Site Preparation) | |
| | 253 lbs/day (Grading) | |
| CO | 1,105 lbs/day (Demolition) | 2,601 lbs/day |
| | 2,084 lbs/day (Site Preparation) | |
| | 2,257 lbs/day (Grading) | |
| PM ₁₀ | 10 lbs/day (Demolition) | 8 lbs/day |
| | 23 lbs/day (Site Preparation) | |
| | 27 lbs/day (Grading) | |
| PM _{2.5} | 5 lbs/day (Demolition) | 3 lbs/day |
| | 9 lbs/day (Site Preparation) | |
| | 9 lbs/day (Grading) | |
| Phase B (P.A. 6) | | |
| NO _x | 122 lbs/day (Demolition) | 274 lbs/day |
| | 224 lbs/day (Site Preparation) | |
| | 241 lbs/day (Grading) | |
| CO | 919 lbs/day (Demolition) | 2,287 lbs/day |

**Table 4.3-11
Localized Thresholds Summary**

| Pollutant | Construction | Operations |
|--------------------------------|---------------------------------------|-------------------|
| | 1,798 lbs/day (Site Preparation) | |
| | 1,961 lbs/day (Grading) | |
| PM ₁₀ | 6 lbs/day (Demolition) | 5 lbs/day |
| | 14 lbs/day (Site Preparation) | |
| | 16 lbs/day (Grading) | |
| PM _{2.5} | 4 lbs/day (Demolition) | 2 lbs/day |
| | 7 lbs/day (Site Preparation) | |
| | 8 lbs/day (Grading) | |
| Phase C | | |
| NO _x | 129 lbs/day (Demolition) | 282 lbs/day |
| | 231 lbs/day (Site Preparation) | |
| | 248 lbs/day (Grading) | |
| CO | 1,030 lbs/day (Demolition) | 2,476 lbs/day |
| | 1,970 lbs/day (Site Preparation) | |
| | 2,138 lbs/day (Grading) | |
| PM ₁₀ | 8 lbs/day (Demolition) | 7 lbs/day |
| | 19 lbs/day (Site Preparation) | |
| | 22 lbs/day (Grading) | |
| PM _{2.5} | 5 lbs/day (Demolition) | 2 lbs/day |
| | 8 lbs/day (Site Preparation) | |
| | 9 lbs/day (Grading) | |
| Off-Site Infrastructure | | |
| NO _x | 118 lbs/day (Off-Site Infrastructure) | N/A |
| CO | 863 lbs/day (Off-Site Infrastructure) | N/A |
| PM ₁₀ | 5 lbs/day (Off-Site Infrastructure) | N/A |
| PM _{2.5} | 4 lbs/day (Off-Site Infrastructure) | N/A |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Construction-Source Emissions LST Impacts Summary

Based on the area of disturbance, distance to receptors, and applicable thresholds, maximum daily localized construction-source emissions impacts were identified. Construction-source emissions LST Impacts are summarized at Table 4.3-12.

**Table 4.3-12
Localized Construction-Source Emissions Impacts Summary**

| On-Site Demolition Emissions | Emissions (lbs./day) | | | |
|------------------------------------|----------------------|--------------|------------------|-------------------|
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Phase A | | | | |
| Maximum Daily Emissions | 33.20 | 21.75 | 1.69 | 1.55 |
| SCAQMD Localized Threshold | 156 | 1,459 | 255 | 125 |
| Threshold Exceeded? | No | No | No | No |
| Phase B (PA's 1, 2, 3) | | | | |
| Maximum Daily Emissions | 19.29 | 15.45 | 0.99 | 0.88 |
| SCAQMD Localized Threshold | 134 | 1,105 | 10 | 5 |
| Threshold Exceeded? | NO | NO | NO | NO |
| Phase B (PA 6) | | | | |
| Maximum Daily Emissions | 6.43 | 5.15 | 0.33 | 0.29 |
| SCAQMD Localized Threshold | 122 | 919 | 6 | 4 |
| Threshold Exceeded? | No | No | No | No |
| Phase C | | | | |
| Maximum Daily Emissions | 19.20 | 19.42 | 1.50 | 0.89 |
| SCAQMD Localized Threshold | 129 | 1,030 | 8 | 5 |
| Threshold Exceeded? | No | No | No | No |
| On-Site Site Preparation Emissions | Emissions (lbs./day) | | | |
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Phase A | | | | |
| Maximum Daily Emissions | 63.79 | 22.39 | 11.28 | 6.59 |
| SCAQMD Localized Threshold | 260 | 2,641 | 221 | 143 |
| Threshold Exceeded? | No | No | No | No |
| Phase B (PA's 1, 2, 3) | | | | |
| Maximum Daily Emissions | 31.41 | 13.72 | 7.69 | 4.23 |
| SCAQMD Localized Threshold | 236 | 2,084 | 23 | 9 |
| Threshold Exceeded? | No | No | No | No |

**Table 4.3-12
Localized Construction-Source Emissions Impacts Summary**

| On-Site Demolition Emissions | Emissions (lbs./day) | | | |
|-----------------------------------|----------------------|-------|------------------|-------------------|
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Phase B (PA 6) | | | | |
| Maximum Daily Emissions | 10.47 | 4.57 | 2.56 | 1.41 |
| SCAQMD Localized Threshold | 224 | 1,798 | 14 | 7 |
| Threshold Exceeded? | No | No | No | No |
| Phase C | | | | |
| Maximum Daily Emissions | 35.72 | 17.41 | 9.98 | 5.40 |
| SCAQMD Localized Threshold | 231 | 1,970 | 19 | 8 |
| Threshold Exceeded? | No | No | No | No |
| On-Site Grading Emissions | Emissions (lbs./day) | | | |
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Phase A | | | | |
| Maximum Daily Emissions | 60.88 | 32.40 | 6.47 | 3.74 |
| SCAQMD Localized Threshold | 277 | 2,841 | 246 | 146 |
| Threshold Exceeded? | No | No | No | No |
| Phase B (PA's 1, 2, 3) | | | | |
| Maximum Daily Emissions | 31.27 | 21.06 | 4.25 | 2.25 |
| SCAQMD Localized Threshold | 253 | 2,257 | 27 | 9 |
| Threshold Exceeded? | No | No | No | No |
| Phase B (PA 6) | | | | |
| Maximum Daily Emissions | 10.42 | 7.02 | 1.42 | 0.75 |
| SCAQMD Localized Threshold | 241 | 1,961 | 16 | 8 |
| Threshold Exceeded? | No | No | No | No |
| Phase C | | | | |
| Maximum Daily Emissions | 33.19 | 26.08 | 5.33 | 2.69 |
| SCAQMD Localized Threshold | 248 | 2,138 | 22 | 9 |
| Threshold Exceeded? | No | No | No | No |
| Off-Site Infrastructure Emissions | Emissions (lbs./day) | | | |
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Maximum Daily Emissions | 41.47 | 42.78 | 4.57 | 3.03 |
| SCAQMD Localized Threshold | 118 | 863 | 5 | 4 |
| Threshold Exceeded? | No | No | No | No |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

As indicated at Table 4.3-12, localized Project construction-source emissions would not exceed applicable LSTs and would therefore be less-than-significant.

Level of Significance: Less-Than-Significant.

Operational-Source Emissions LST Impacts Summary

Maximum daily localized operational-source emissions impacts are summarized at Table 4.3-12. The operational-source LST analysis includes on-site sources only; however, CalEEMod outputs do not separate on-site and off-site emissions from mobile sources. In an effort to establish a likely maximum potential impact scenario, the emissions estimates presented at Table 4.3-13 represent all on-site Project-related stationary (area) sources and Project-related mobile sources. It is assumed that the maximum distance a passenger car and/or truck would make through Phase A of the Project site is 0.40 miles, 0.65 miles for Phase B (western portion), 0.40 miles for Phase B (eastern portion), and 1.20 miles for Phase C. An on-site travel distance of approximately 0.40 mile/2,112 feet for Phase A, 0.65 mile/3,432 feet for Phase B (western portion), 0.40 mile/2,112 feet for Phase B (eastern portion), and 1.20 miles/6,336 feet for each passenger car and truck trips respectively. Modeling based on these assumptions demonstrates that even within broad encompassing parameters, Project operational-source emissions would not exceed applicable LSTs.

**Table 4.3-13
Localized Operational-Source Emissions Impacts Summary**

| | Emissions (lbs./day) | | | |
|--------------------------------|----------------------|--------------|------------------|-------------------|
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Phase A | | | | |
| Maximum Daily Emissions | 17.55 | 14.51 | 2.20 | 1.11 |
| SCAQMD Localized Threshold | 345 | 4,216 | 78 | 41 |
| Threshold Exceeded? | No | No | No | No |
| Phase B (PA's 1, 2, 3) | | | | |
| Maximum Daily Emissions | 26.45 | 31.08 | 6.12 | 2.41 |
| SCAQMD Localized Threshold | 287 | 2,601 | 8 | 3 |

**Table 4.3-13
Localized Operational-Source Emissions Impacts Summary**

| | Emissions (lbs./day) | | | |
|----------------------------|----------------------|--------------|------------------|-------------------|
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Threshold Exceeded? | No | No | No | No |
| Phase B (PA 6) | | | | |
| Maximum Daily Emissions | 6.33 | 6.69 | 1.09 | 0.48 |
| SCAQMD Localized Threshold | 274 | 2,287 | 5 | 2 |
| Threshold Exceeded? | No | No | No | No |
| Phase C | | | | |
| Maximum Daily Emissions | 9.06 | 14.97 | 4.84 | 1.48 |
| SCAQMD Localized Threshold | 282 | 2,476 | 7 | 2 |
| Threshold Exceeded? | No | No | No | No |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

As indicated at Table 4.3-13, localized Project operational-source emissions would not exceed applicable LSTs and would therefore be less-than-significant.

Level of Significance: Less-Than-Significant.

CO “Hot Spot” Analysis

Potentially adverse localized CO concentrations (“hot spots”) are caused by vehicular emissions, primarily when idling at congested intersections. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentrations within the Basin have declined over time. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent).

To establish a more accurate record of baseline CO concentrations affecting the Basin, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon traffic periods. Peak hour traffic volumes reflected in

the 2003 Los Angeles CO hot spot analysis are presented at Table 4.3-14. The 2003 Los Angeles CO Hot Spot Analysis (2003 Hot Spot Analysis) did not predict any violation of CO standards (please refer to Table 4.3-15). It can, therefore, be reasonably concluded that projects (such as the proposed Project) that are not subject to the extremes in vehicle volumes and vehicle congestion that was evidenced in the 2003 Hot Spot Analysis would similarly not result in CO hot spots.

Table 4.3-14
2003 Hot Spot Analysis Intersection Traffic Volumes

| Intersection Location | Peak Traffic Volumes (vph) | | | | |
|-----------------------|----------------------------|----------------------|-----------------------|-----------------------|------------------|
| | Eastbound (AM/PM) | Westbound (AM/PM) | Southbound (AM/PM) | Northbound (AM/PM) | Total (AM/PM) |
| Wilshire/Veteran | 4,954/2,069 | 1,830/3,317 | 721/1,400 | 560/933 | 8,062/7,719 |
| Sunset/Highland | 1,417/1,764 | 1,342/1,540 | 2,304/1,832 | 1,551/2,238 | 6,614/5,374 |
| La Cienega/Century | 2,540/2,243 | 1,890/2,728 | 1,384/2,029 | 821/1,674 | 6,634/8,674 |
| Long Beach/Imperial | 1,217/2,020 | 1,760/1,400 | 479/944 | 756/1,150 | 4,212/5,514 |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Table 4.3-15
2003 Hot Spot Analysis CO Modeling Results

| Intersection Location | CO Concentrations (ppm) | | |
|-----------------------|-------------------------|------------------|---------|
| | Morning 1-hour | Afternoon 1-hour | 8-hour* |
| Wilshire/Veteran | 4.6 | 3.5 | 3.7 |
| Sunset/Highland | 4 | 4.5 | 3.5 |
| La Cienega/Century | 3.7 | 3.1 | 5.2 |
| Long Beach/Imperial | 3 | 3.1 | 8.4 |

Source: Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Notes: * Reported carbon monoxide concentrations were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example the 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the 2003 Hot Spot Analysis, only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the balance of the reported CO concentration (approximately 7.7 ppm) was due to the ambient conditions at the time the 2003 Hot Spot Analysis prepared. In contrast, the current ambient 8-hr CO concentration within the Project Study Area is estimated at 1.3 ppm (please refer to AQIA Table 2-4).

The busiest intersection evaluated in the 2003 Hot Spot Analysis was Wilshire Boulevard at Veteran Avenue which reported a daily traffic volume of approximately 100,000 vehicles per day, and AM/PM traffic volumes of 8,062 vehicles per hour and 7,719

vehicles per hour respectively. The 2003 AQMP estimated that the maximum 1-hour concentration for this intersection was 4.6 ppm. This indicates that, should the daily traffic volume increase by as much as four times to 400,000 vehicles per day, CO concentrations ($4.6 \text{ ppm} \times 4 = 18.4 \text{ ppm}$) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) CO Hot Spot screening criteria provides that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or to more 24,000 vehicles per hour where vertical and/or horizontal air does not mix (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway)—in order to generate a significant CO impact (BAAQMD CEQA Air Quality Guidelines, p. 3-4).

Under 2026 conditions with the Project, the greatest traffic volumes experienced on a segment of road would be approximately 51,800 daily trips on Euclid Avenue south of Pine Avenue (please refer to Project TIA Exhibit 8-3). This is approximately 51.8 percent of the estimated 100,000 vehicles per day traffic volumes for Wilshire Boulevard and Veteran Avenue reflected in the 2003 Hot Spot Analysis.

Additionally, under 2026 Conditions with the Project, the greatest intersection AM/PM peak hour volumes would be 4,660/6,271 vehicles per hour at the intersection of Roswell Avenue/SR-71 Northbound Ramps & Grand Avenue/Edison Avenue (please refer to Project TIA Exhibit 8-4). This is approximately 53.7 – 72.4 percent of the 8,674-vehicle peak-hour traffic volume reported at La Cienega and Century Boulevard as part of the 2003 Hot Spot Analysis.

As indicated above, the Project would not produce the volume of traffic required to generate a CO “hot spot” either in the context of the 2003 Hot Spot Analysis or based on representative Bay Area Air Quality Management District (BAAQMD) CO Hot Spot screening criteria. Therefore, CO “hot spots” are not an environmental impact of concern

for the proposed Project. Localized air quality impacts related to CO hot spots would therefore be less-than-significant.

It is further noted that as the result of the SCAQMD Air Quality Management Plan strategies and requirements, levels of all criteria pollutant (including CO) within the Basin have steadily improved and are expected to continue to do so, further reducing the potential for occurrence of CO hot spots.

Level of Significance: Less-Than-Significant.

Toxic Air Contaminants Health Risk Analysis

Toxic Air Contaminants (TACs) of primary concern for the Project would be Diesel Particulate Matter (DPM) emissions generated by heavy duty trucks accessing the Project site. Heavy equipment operations during Project construction activities would also generate DPM emissions. Project DPM sources are discussed below. Potential health risks of Project-related DPM emissions are described and evaluated subsequently.

The Project would generate truck traffic, a portion of which may be diesel-powered. DPM emissions are known carcinogens and could increase area health risks. Accordingly, an analysis of potential long-term diesel exposure health risks is provided. To this end, *Merrill Commerce Center Specific Plan, Mobile Source Health Risk Assessment, County of Riverside* (Urban Crossroads, Inc.) January 12, 2020 (Project HRA, EIR Appendix D) characterizes and quantifies potential diesel emissions generated by, and health risk exposure resulting from, Project operations.

Truck trip generation characteristics presented in the Project TIA were utilized in the developing the Project HRA. It should be noted that the Project TIA presents truck trips in terms of Passenger Car Equivalent (PCEs) in an effort to recognize and acknowledge the effects of larger/longer truck vehicles at Study Area intersections. For purposes of the HRA, however, the actual number and types of vehicles accessing the Project site (not PCEs) establishes the basis of the emissions quantification and analysis, and truck PCEs

were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification [e.g., passenger cars (including light trucks) and heavy trucks] were used in the analysis. This is consistent with SCAQMD modeling protocols.

The Project is required to comply with CARB's on-site truck idling limit of 5 minutes. SCAQMD staff recommends that HRA's assume a minimum of 15 minutes of on-site truck idling, which would take into account potential protracted on-site idling which could occur at loading/unloading areas, or other areas or instances where on-site truck traffic movements may be impeded or delayed. Consistent with SCAQMD recommendations, the Project HRA analysis assumed on-site truck idling for a period of 15 minutes.

To account for the possibility of refrigerated uses being accommodated at PA1, PA2, PA3, PA4, PA5, and PA6, trucks accessing these PAs are assumed to accommodate TRUs. In addition to on-site truck idling, the analysis assumes that each TRU accessing the site would idle for 15 minutes, even though as noted above, CARB anti-idling rules mandate a 5-minute idling time. Mitigation Measure 4.2.7, presented previously in this Section, requires that electrical hookups be installed in order to allow TRUs to use electric standby capabilities in lieu of idling. TRUs are also accounted for during on-site and off-site travel. Please refer also to the Project HRA at Section 2.3.2, *Transport Refrigeration Units (TRUs)* for further details regarding TRU emissions modeling assumptions and protocols.

Carcinogenic and Noncarcinogenic Risks

Carcinogenic Risks

The SCAQMD *CEQA Air Quality Handbook* (1993) states that emissions of Toxic Air Contaminants (TACs) are considered significant if a Health Risk Assessment shows an increased carcinogenic risk of greater than 10 incidents per million population. Consistent with the stated SCAQMD *Handbook* cancer risk threshold, for the purposes of this analysis, an increase in cancer risk of 10 incidents per million population is considered

significant. Also relevant to the Project HRA, specific guidance in determining health risks from diesel emissions is provided in *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (SCAQMD) 2003.

Health risks associated with exposure to carcinogenic compounds are defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined by multiplying the chemical's annual concentration by its unit risk factor (URF). The Project HRA employs the CARB-adopted diesel exhaust URF of 300 in one million per $\mu\text{g}/\text{m}^3$ is based upon the upper 95 percentile of estimated risk for each of the epidemiological studies utilized to develop the URF. Using the 95th percentile, URF represents a very conservative (health-protective) risk posed by DPM.

Consistent with CARB and Office of Environmental Health Hazard (OEHHA) guidance, and SCAQMD HRA protocols, Project-related DPM-source cancer risks were evaluated for three exposure scenarios: "Residential," "Worker," and "School Child." Exposure parameters and assumptions for each scenario are summarized at Tables 4.3-16, 4.3-17, and 4.3-18 respectively.

Table 4.3-16
Residential Exposure Parameters and Assumptions

| Age | Daily Breathing Rate (L/kg-day) | Age Specific Factor | Exposure Duration (years) | Fraction of Time at Home | Exposure Frequency (days/year) | Exposure Time (hours/day) |
|------------|---------------------------------|---------------------|---------------------------|--------------------------|--------------------------------|---------------------------|
| -0.25 to 0 | 361 | 10 | 0.25 | 0.85 | 350 | 24 |
| 0 to 2 | 1090 | 10 | 2 | 0.85 | 350 | 24 |
| 2 to 16 | 572 | 3 | 14 | 0.72 | 350 | 24 |
| 16 to 30 | 261 | 1 | 14 | 0.73 | 350 | 24 |

Source: Merrill Commerce Center Specific Plan, Mobile Source Health Risk Assessment, County of Riverside (Urban Crossroads, Inc.) January 12, 2020.

**Table 4.3-17
Worker Exposure Parameters and Assumptions**

| Age | Daily Breathing Rate (L/kg-day) | Age Specific Factor | Exposure Duration (years) | Exposure Frequency (days/year) | Exposure Time (hours/day) |
|----------|---------------------------------|---------------------|---------------------------|--------------------------------|---------------------------|
| 16 to 41 | 230 | 1 | 25 | 250 | 12 |

Source: Merrill Commerce Center Specific Plan, Mobile Source Health Risk Assessment, County of Riverside (Urban Crossroads, Inc.) January 12, 2020.

**Table 4.3-18
School Child Exposure Parameters and Assumptions**

| Age | Daily Breathing Rate (L/kg-day) | Age Specific Factor | Exposure Duration (years) | Exposure Frequency (days/year) | Exposure Time (hours/day) |
|-----------------|---------------------------------|---------------------|---------------------------|--------------------------------|---------------------------|
| 9-year duration | 572 | 3 | 9 | 180 | 12 |

Source: Merrill Commerce Center Specific Plan, Mobile Source Health Risk Assessment, County of Riverside (Urban Crossroads, Inc.) January 12, 2020.

Noncarcinogenic Risks

An evaluation of the potential noncarcinogenic effects of chronic exposures was also conducted. Noncarcinogenic adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). The REL for diesel particulates was obtained from OEHHA for this analysis. The REL for DPM established by OEHHA is 5 µg/m³ (OEHHA Toxicity Criteria Database, <http://www.oehha.org/risk/chemicaldb/index.asp>).

The SCAQMD has established non-carcinogenic risk parameters for use in HRAs. Non-carcinogenic risks are quantified by calculating a Hazard Index, expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A Hazard Index less of than one (1.0) means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures not exceeding the SCAQMD Hazard Index of 1.0 are considered less-than-significant.

Risk Exposure: Quantification Results

Operational-Source DPM Emissions

The Project HRA results for residential (maximally exposed individual receptor, MEIR), worker (maximally exposed individual worker, MEIW), and school child (maximally exposed individual school child, MEISC) carcinogenic and noncarcinogenic risk exposures are summarized below. Locations of the modeled MEIR, MEIW, and MEISC sites relative to the Project site are presented at Figure 4.3-12. Please refer also to the Project HRA (EIR Appendix D) for detailed exposure modeling inputs and results.

Residential Exposure Scenario

For the Residential Exposure Scenario, the Project HRA substantiates that DPM emissions generated by Project operations would in less-than-significant health risks at the maximally impacted residential land use (MEIR). More specifically, at the MEIR, the maximum carcinogenic risk is estimated at 9.34 in one million, which does not exceed the SCAQMD cancer risk threshold of 10 in one million. At this same location, the noncarcinogenic Hazard Index is estimated at 0.002, which would not exceed the applicable Hazard Index threshold of 1.0. As such, Project operations would not cause or result in potentially significant cancer risks or noncarcinogenic risks at the MEIR.

All other potentially affected residential receptors are located at greater distances from the Project site than the MEIR and would be exposed to fewer emissions and therefore less risk than would occur at the evaluated MEIR. The cancer and noncarcinogenic risks at these more distant residential receptors would also be less-than-significant.

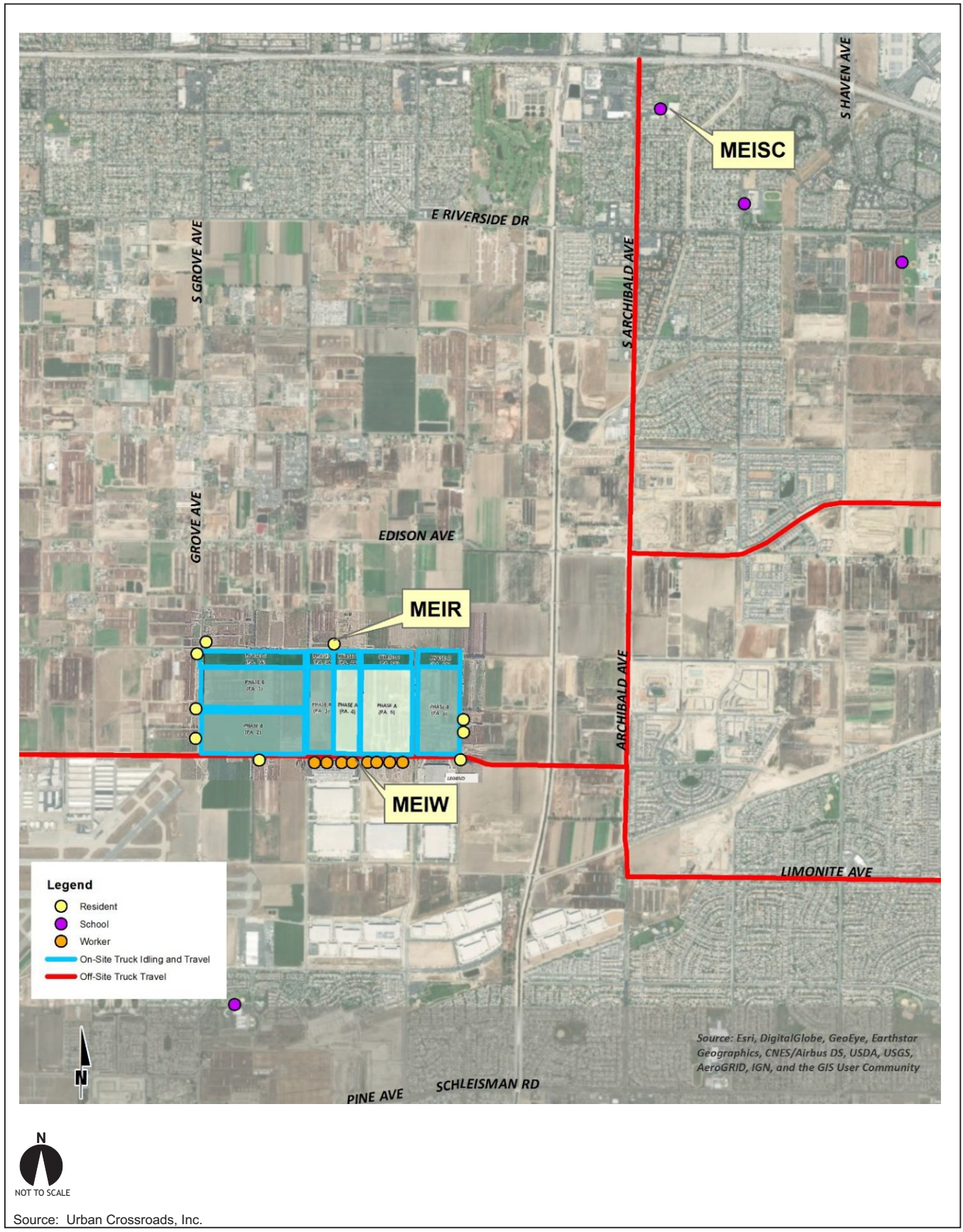


Figure 4.3-12
Modeled MEIR, MEIW, MEISC Locations

Worker Exposure Scenario

For the Worker Exposure Scenario, the Project HRA substantiates that DPM emissions generated by Project operations would have a less-than-significant health risk at the maximally impacted worker location. More specifically, for the maximally exposed individual worker (MEIW), the maximum cancer risk is estimated at 1.15 in one million, which would not exceed the SCAQMD cancer risk threshold of 10 in one million. At this same location, the noncarcinogenic Hazard Index is estimated at 0.004, which would not exceed the applicable Hazard Index threshold of 1.0. As such, Project operations would not cause or result in potentially significant cancer risks or noncarcinogenic risks at the MEIW.

All other potentially affected worker receptors are located at greater distances from the Project site than the MEIW and would be exposed to fewer emissions and therefore less risk than would occur at the evaluated MEIW. The cancer and noncarcinogenic risks at these more distant worker receptors would also be less-than-significant.

School Child Exposure Scenario

For the School Child Exposure Scenario, the Project HRA substantiates that DPM emissions generated by Project operations would have a less-than-significant health risk at the maximally impacted worker location. More specifically, for the maximally exposed individual school child (MEISC), the maximum cancer risk is estimated at 0.08 in one million, which would not exceed the SCAQMD cancer risk threshold of 10 in one million. At this same location, the noncarcinogenic Hazard Index is estimated at 0.0002, which would not exceed the applicable Hazard Index threshold of 1.0. As such, Project operations would not cause or result in potentially significant cancer risks or noncarcinogenic risks at the MEISC.

All other potentially affected school receptors are located at greater distances from the Project site than the MEISC and would be exposed to fewer emissions and therefore less risk than would occur at the evaluated MEISC. The cancer and noncarcinogenic risks at these more distant school child receptors would also be less-than-significant.

Construction-Source DPM Emissions

CARB requests that projects that involve construction activity longer than two months include a construction health risk assessment (HRA). The Project construction HRA⁶ evaluated potential health risks that could result from construction equipment and haul truck DPM emissions. Construction equipment and haul truck emissions were modeled employing CalEEMod v2016.3.2.

The Project construction HRA exposure quantification methodology and protocol comply with applicable provisions of *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (SCAQMD) 2003. SCAQMD recommends using the Environmental Protection Agency's (U.S. EPA's) AERMOD model. For purposes of this analysis, the Lakes AERMOD View (Version 9.7.0) was used to calculate annual average particulate concentrations.

For the Project construction HRA, on-site construction activity was modeled as an area source encompassing the construction area. Construction equipment haul routes were modeled as volume sources. Modeled sensitive receptors were placed at residential and non-residential locations identified at Figure 4.3-13.

Residential Exposure Scenario

For the Residential Exposure Scenario, the residential land use with the greatest potential exposure to construction-source DPM emissions (the MEIR) is located approximately 106 feet easterly of the Project site (Figure 4.3-13, Location R3.) At the MEIR, the maximum incremental cancer risk attributable to construction-source DPM emissions is estimated at 2.92 in one million, which is less than the SCAQMD cancer threshold of 10 in one million. At this same location, noncarcinogenic Hazard Index is estimated at 0.001, which would not exceed the applicable Hazard Index threshold of 1.0. As such, Project construction activities would not cause or result in potentially significant cancer risks or noncarcinogenic risks at the MEIR.

⁶ *Merrill Commerce Center Specific Plan, Construction Health Risk Assessment Memorandum* (Urban Crossroads, Inc.) January 12, 2020, EIR Appendix D.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND:

- Receptor Locations
- Construction Activity
- Distance from receptor to construction activity (in feet)



Source: Urban Crossroads, Inc.

Figure 4.3-13
Construction-Source Sensitive Receptor Locations

All other potentially affected residential receptors are located at greater distances from the Project site than the MEIR and would be exposed to fewer emissions and therefore less risk than would occur at the evaluated MEIR. The cancer and noncarcinogenic risks at these more distant residential receptors would also be less-than-significant.

Worker Exposure Scenario

For the Worker Exposure Scenario, the worker receptor land use with the greatest potential exposure to construction-source DPM emissions (the MEIW) is located approximately 257 feet southerly of the Project site (Figure 4.3-13, location R9). At the MEIW, the maximum incremental cancer risk attributable to construction-source DPM emissions is estimated at 0.28 in one million, which is less than the SCAQMD cancer threshold of 10 in one million. At this same location, the noncarcinogenic Hazard Index is estimated at 0.001, which would not exceed the applicable Hazard Index threshold of 1.0. As such, Project construction activities would not cause or result in potentially significant cancer risks or noncarcinogenic risks at the MEIW.

All other potentially affected worker receptors are located at greater distances from the Project site than the MEIW and would be exposed to fewer emissions and therefore less risk than would occur at the evaluated MEIW. The cancer and noncarcinogenic risks at these more distant worker receptors would also be less-than-significant.

Localized Air Quality Impact Summary

- Project construction-source criteria pollutant emissions would not exceed applicable LSTs. Project construction-source LST impacts would be less-than-significant. Project construction-source DPM emissions would not exceed applicable cancer or noncarcinogenic risk thresholds. Project construction-source DPM emissions health risk impacts would be less-than-significant.
- Project operational-source criteria pollutant emissions would not exceed applicable LSTs. Project operational-source LST impacts would be less-than-

significant. Project operational-source DPM emissions would not exceed applicable cancer or noncarcinogenic risk thresholds. Project operational-source DPM emissions health risk impacts would be less-than-significant.

- The Project would not result in localized significant CO Hot Spots.

Level of Significance: Less-Than-Significant.

OTHER CONSIDERATIONS - *Sierra Club v. County of Fresno (Friant Ranch)*

A recent Supreme Court of California decision, *Sierra Club v. County of Fresno (Friant Ranch)*, found an EIR inadequate and states that:

The EIR should be revised to relate the expected adverse air quality impacts to likely health consequences or explain in meaningful detail why it is not feasible at the time of drafting to provide such an analysis, so that the public may make informed decisions regarding the costs and benefits of the Project⁷.

Given that the AQIA for this Project identifies a significant and unavoidable Project level and cumulative impact with regard to VOCs and NO_x emissions, the following assessment serves to provide an analysis in conformance with the cited *Friant Ranch* decision. The discussion presented here further clarifies, amplifies, and augments the air quality analysis already undertaken for the Project.

As summarized in the Project AQIA, the Project's operational-source VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions would exceed applicable SCAQMD regional mass daily

⁷ It should be noted that the EIR for Friant Ranch did not include a health risk assessment report. In contrast, the Merrill Commerce Center Project CEQA documentation includes a detailed mobile source health risk assessment which evaluates the Project's potential health impacts to sensitive land uses as a result of diesel exhaust generated by the Project's construction and on-going operations. The Project CEQA documentation also includes an analysis of potential localized impacts attributable to CO, NO_x, PM₁₀, and PM_{2.5} emissions that correlate to potential health impacts on a local level.

thresholds. Per SCAQMD significance guidance, these impacts at the Project level are also considered cumulatively significant and would persist over the life of the Project. VOCs and NO_x are ozone precursors and as such Project emissions of VOCs and NO_x have the potential to contribute to existing ozone non-attainment conditions within the Basin. NO_x is also a precursor to PM₁₀/PM_{2.5}. Project emissions of NO_x have the potential to contribute to existing PM₁₀/PM_{2.5} non-attainment conditions within the Basin. Project emissions of PM₁₀/PM_{2.5} have the potential to contribute to existing PM₁₀/PM_{2.5} non-attainment conditions within the Basin. These are cumulatively significant impacts persisting over the life of the Project.

SCAQMD Analysis in its Brief

As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case (April 6, 2015, Appendix 3.16) (SCAQMD Brief), SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes.

The SCAQMD discusses that it may be infeasible to quantify health risks caused by developments similar to the Project, due to many factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). (SCAQMD Brief, p. 9-10). The SCAQMD Brief states that it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on “speculation” (i.e., without knowing the future tenant(s))⁸(SCAQMD Brief, p. 10). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk--it does not necessarily mean anyone will contract cancer as a result of the Project. The SCAQMD Brief also cites the author of the CARB methodology, which

⁸ The actual occurrence of specific health conditions is based on numerous other factors that are infeasible to quantify, such as an individual’s genetic predisposition, diet, exercise regiment, stress, and other behavioral characteristics.

reported that a PM_{2.5} methodology is not suited for small projects and may yield unreliable results (SCAQMD Brief, p. 14). Similarly, SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects due to photochemistry and regional model limitations (SCAQMD Brief, p. 12). The SCAQMD Brief concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful (SCAQMD Brief, p. 15).

On the other hand, for large regional projects (unlike the Project), the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 lbs./day of NO_x and 89,180 lbs./day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to ozone (SCAQMD Brief, p. 12).

Application of SCAQMD Analysis to the Project

The Brief makes it clear that SCAQMD does not believe that there must be a quantification of a project's health risks in all CEQA documents prepared for individual projects. Any attempt to quantify the Project's health risks would be considered unreliable and misleading. The Project is much less intense than the Friant Ranch project and has dramatically fewer air quality emissions, and the SCAQMD determined that an attempt to quantify the Friant Ranch health risks would be unreliable and misleading, due to the aforementioned factors.

The Project does not generate anywhere near 6,620 lbs./day of NO_x or 89,190 lbs./day of VOC emissions, which SCAQMD stated was a large enough emission to quantify ozone-related health impacts (SCAQMD Brief, pp. 12-14). The Project would generate a maximum of 81.46 lbs./day of NO_x during construction and a maximum of 870.76 lbs./day of NO_x during operations (1.23 percent and 13.15 percent of 6,620 lbs./day, respectively). The Project would also generate a maximum 29.52 lbs./day of VOC emissions during construction and a maximum 246.78 lbs./day of VOC emissions during operations (0.03

percent and 0.28 percent of 89,190 lbs./day, respectively). Therefore, the Project's emissions are not sufficient to use a regional modeling program to correlate health effects on a basin-wide level.

While the Project is expected to exceed the SCAQMD's regional mass daily thresholds for VOC, NO_x, CO, PM₁₀, and PM_{2.5}, this does not in itself constitute a significant health impact to the population adjacent to the Project and within the SCAB.

The Project AQIA does evaluate localized impacts that correlate to potential health impacts on a local level to immediately adjacent land uses. To these ends, the Project LST analysis compares Project on-site emissions of CO, NO_x, PM₁₀, and PM_{2.5} to applicable SCAQMD LST thresholds. As evaluated in the Project AQIA, the Project would not result in emissions that would exceed applicable SCAQMD LSTs. Therefore, the Project would not be expected to exceed the most stringent applicable NAAQS and CAAQS for emissions of CO, NO_x, PM₁₀, and PM_{2.5}.

Further Discussion of the Proposed Project's Health Risks

Although it may be misleading and unreliable to attempt to specifically and numerically quantify the proposed Project's health risks, the Project AQIA provides extensive information concerning the Project's potential health risks. While the Project is expected to exceed the SCAQMD's numeric regional mass daily thresholds for VOCs, NO_x, CO, PM₁₀ and PM_{2.5} this does not in itself constitute a significant health impact to the population adjacent to the Project and within the air basin.

The SCAQMD regional thresholds are based in part on Section 180 (e) of the federal Clean Air Act (CAA) – it should be noted that the regional mass daily thresholds have not changed since their adoption as part of the *CEQA Air Quality Handbook* published by SCAQMD in 1993 (over 20 years ago). The regional mass daily thresholds are also intended to provide a means of consistency in significance determination within the environmental review process. Notwithstanding, simply exceeding the SCAQMD's regional mass daily thresholds does not constitute a particular health impact to an

individual receptor. The reason for this is that the mass daily thresholds are in pounds per day emitted into the air whereas health effects are determined based on the concentration of emissions in the air at a particular receptor (e.g., parts per million by volume of air, or micrograms per cubic meter of air). State and federal ambient air quality standards were developed to protect the most susceptible population groups from adverse health effects and were established in terms of parts per million or micrograms per cubic meter for the applicable emissions.

For this reason, the SCAQMD developed a methodology to assist lead agencies in analyzing localized air quality impacts from a proposed project as they relate to CO, NO_x, PM_{2.5} and PM₁₀. This methodology employs Localized Significance Thresholds (LSTs). LSTs differ from the regional mass daily thresholds since the LSTs are based on the amount of emissions generated from a given project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. LSTs and the localized air quality impact analysis specifically account for ambient pollutant concentrations and the relative distance to the nearest sensitive receptor (the SCAQMD LST methodology and protocol incorporates air dispersion modeling that quantifies distance-based emissions concentrations).

The Project AQIA evaluated the Project's localized CO, NO_x, PM₁₀, and PM_{2.5} air quality impacts by comparing the Project's on-site emissions to applicable LST thresholds. As substantiated in the Project AQIA, the Project would not generate emissions exceeding applicable SCAQMD LSTs. Therefore, the Project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO_x, PM₁₀, and PM₁₀. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (children and the elderly) are protected from health-based impacts. In other words, the ambient air quality standards are purposefully set low to protect children, elderly, and those with existing respiratory problems.

Furthermore, as summarized herein at Section 4.3.3.3, *Air Quality Improvement Trends*, air quality trends for emissions of NO_x, VOCs, Ozone, PM₁₀ and PM_{2.5} have been trending downward within the Basin even as development has increased over the last several years. Therefore, although the Project emissions would exceed the SCAQMD's thresholds for NO_x, VOCs, PM₁₀ and PM_{2.5} this does not in itself constitute a basin-wide increase in potential health effects related to these pollutants.

Unfortunately, current scientific, technological, and modeling limitations prevent the relation of expected CEQA-defined adverse air quality impacts to likely health consequences. The preceding discussion explains in meaningful detail why it is not feasible to provide such a causal relationship analysis, but why health-based impacts are nonetheless anticipated to be less-than-significant.

4.4 GREENHOUSE GAS EMISSIONS

4.4 GREENHOUSE GAS EMISSIONS

Abstract

This Section identifies and addresses potential greenhouse gas (GHG) emissions impacts that may result from construction and implementation of the Project. More specifically, the GHG emissions impacts analysis evaluates the potential for the Project to cause or result in the following impacts:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or*
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

As summarized herein, even after application of mitigation, the Project could directly or indirectly generate GHG emissions that may have a significant impact on the environment. Further, the Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. These are significant and unavoidable impacts.

4.4.1 INTRODUCTION

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place

since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual development proposal, such as the Project considered herein, cannot generate enough greenhouse gas emissions to effect a discernible change in the global climate. However, the Project may contribute to GCC through its increment of greenhouse gases (GHG) in combination with the cumulative increase in GHG from all other sources, which when taken together constitute potential influences on GCC. This Section summarizes the potential for the Project to have a significant effect upon the environment as a result of its potential contribution to GCC. Detailed analysis of the Project's potential GHG/GCC impacts is presented in *Merrill Commerce Center Specific Plan, Greenhouse Gas Analysis, City of Ontario* (Urban Crossroads, Inc.) January 12, 2020 (Project GHGA); EIR Appendix E.

4.4.2 BACKGROUND

4.4.2.1 Global Climate Change

GCC refers to the change in average meteorological conditions with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO₂ (Carbon Dioxide), N₂O (Nitrous Oxide), CH₄ (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the atmosphere, but prevent heat from escaping, thus warming the atmosphere. GCC can occur naturally, as it has in the past with the previous ice ages.

4.4.2.2 Greenhouse Gases

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The accumulation of these gases in the atmosphere is considered to be the cause for the observed increase in the earth's temperature.

GHGs have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is used as the reference gas for GWP, and thus has a GWP of 1. GWP and atmospheric lifetimes of typical GHGs are summarized in Table 4.4-1.

**Table 4.4-1
GHG Global Warming Potentials and Atmospheric Lifetimes**

| Gas | Atmospheric Lifetime (years) | Global Warming Potential (100-year time horizon) | |
|------------------|------------------------------|--|-----------------------|
| | | 2nd Assessment Report | 5th Assessment Report |
| CO ₂ | * | 1 | 1 |
| CH ₄ | 12.4 | 21 | 28 |
| N ₂ O | 121 | 310 | 265 |
| HFC-23 | 222 | 11,700 | 12,400 |
| HFC-134a | 13.4 | 1,300 | 1,300 |
| HFC-152a | 1.5 | 140 | 138 |
| SF ₆ | 3,200 | 23,900 | 23,500 |

Source: Merrill Commerce Center Specific Plan, Greenhouse Gas Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Notes: * Per IPCC 5th Assessment Report (Appendix 8.A), no single atmospheric lifetime.

The following discussions summarize and describe commonly occurring GHGs, their sources, and general characteristics.

Water Vapor

Water vapor (H₂O) is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. Climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to ‘hold’ more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a “positive feedback loop.” The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. For example, increased atmospheric water vapor translates to increased cloud cover and increased reflection of incoming solar radiation (thus diminishing potential radiant heating of the earth’s surface).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide

Carbon dioxide (CO₂) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks.

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO₂ concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources.

Methane

Methane (CH₄) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. No health effects are known to occur from exposure to methane.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropogenic sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide

Nitrous oxide (N₂O), also known as laughing gas, is a colorless GHG. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant (i.e., in whipped cream bottles). It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction.

Chlorofluorocarbons

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C₂H₆) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Among the constituents classified as GHGs, they are one of three groups with the highest GWP. The HFCs with the greatest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a ($\text{CF}_3\text{CH}_2\text{F}$), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The U.S. EPA estimates that concentrations of CF_4 in the atmosphere are over 70 ppt.

No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride

Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (22,800). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

4.4.2.3 Existing Greenhouse Gases Emissions Inventories

Global

Worldwide anthropogenic GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). This GHG emission data through 2017 is available for Annex I nations. Global GHG emissions are summarized at Table 4.4-2 and are representative of currently available inventory data.

United States

As identified in Table 4.4-2, the United States, as a single country, was the number two producer of GHG emissions in 2017. Carbon dioxide from fossil fuel combustion is the largest source of GHG emissions in the United States.

**Table 4.4-2
Global GHG Emissions by Source Countries and the EU (2017)**

| Sources | GHG Emissions (Gigagram CO ₂ e) |
|--------------------------------------|--|
| China | 11,911,710 |
| United States | 6,456,718 |
| European Union (28-member countries) | 4,323,163 |
| India | 3,079,810 |
| Russian Federation | 2,155,470 |
| Japan | 1,289,630 |
| Total | 29,216,501 |

Source: Merrill Commerce Center Specific Plan, Greenhouse Gas Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

State of California

California has significantly slowed the rate of growth of GHG emissions through implementation of energy efficiency programs and adoption and implementation of strict emission controls, nonetheless California is still a substantial contributor to the U.S. emissions inventory total.

The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Per CARB GHG inventory data for the 2000-2017 GHG emissions period, California emitted an average 424.1 million metric tons of CO₂e (MMTCO₂e) per year.

City of Ontario

The City community-wide 2008 GHG emissions totaled an estimated 2,503,816 metric tons of CO₂e (MTCO₂e). The City's 2020 Business as Usual (BAU) GHG emissions inventory is estimated at 3,127,987 MTCO₂e community-wide.¹

Project Site

The Project site is currently occupied with a dairy farm, cattle stockades, support equipment for cattle and dairy farming, bio-retention basins at the southern boundary, a trucking operation on the eastern portion, and residences at various locations within the Project site. These uses generate GHG emissions that would be eliminated should the Project be approved. GHG emissions from the primary site sources (cattle and dairy farming operations) is estimated at 8,858.50 MTCO₂e/year.² As a conservative measure, within this analysis no "credit" or offset against the Project GHG emissions has been taken for GHG emissions generated by existing site uses.

¹ City of Ontario Community Climate Action Plan (City of Ontario) December 16, 2014, p. ES-5.

² Previous analysis for a 70-acre site accommodating dairy farm operations indicates these uses would generate approximately 1,835.70 MTCO₂e/year (see: *Kimball Business Park EIR* (SCH No. 2015071025). This would equate to a factor of approximately 26.224 MTCO₂e/year/acre. Approximately 337.8 acres of the Project site are currently employed for various dairy farming uses. Estimated Project site baseline GHG emissions = 337.8 acres x 26.224 MTCO₂e/year/acre = 8,858.50 MTCO₂e/year.

4.4.2.4 Effects of Climate Change in California

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios Report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise

to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there may be years with insufficient snow for skiing and snowboarding.

State water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of its water supply. Although higher CO₂ levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O₃ pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts.

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including: precipitation, winds, temperature, terrain, and vegetation, future risks would likely not be uniform throughout the State. For example, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the State. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the State's forests has the potential to decrease as a result of GCC.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the State's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Increased sea level elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt

wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12 to 14 inches.

4.4.2.5 Health Effects of Greenhouse Gases

Water Vapor

There are no known direct health effects related to water vapor at this time. However, water vapor can be a transport mechanism for other pollutants to enter the human body.

Carbon Dioxide

According to the National Institute for Occupational Safety and Health (NIOSH), high concentrations of carbon dioxide can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of carbon dioxide in the earth's atmosphere are estimated to be approximately 370 ppm, while the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15-minute period.

Methane

Methane (CH₄) is extremely reactive with oxidizers, halogens, and other halogen-containing compounds, may displace oxygen in an enclosed space and act as an asphyxiant.

Nitrous Oxide

Nitrous Oxide (N₂O) is often referred to as laughing gas; it is a colorless GHG. Health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations. In extreme cases of elevated concentrations, nitrous oxide can also cause brain damage.

Chlorofluorocarbons (CFCs)

In confined indoor locations, working with CFCs may result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

Hydrofluorocarbons (HFCs)

No health effects are known to result from exposure to HFCs.

Perfluorinated Carbons (PFCs)

No health effects are known to result from exposure to PFCs.

Sulfur Hexafluoride (SF₆)

In high concentrations in confined areas, SF₆ may result in suffocation because it displaces the oxygen.

Nitrogen Trifluoride (NF₃)

Long-term or repeated exposure to NF₃ may adversely affect the liver and kidneys and may cause fluorosis.

4.4.3 GCC REGULATORY SETTING

The current GHG regulatory setting is extensive and constantly evolving. The GHG regulatory setting is discussed in detail within the Project GHG Analysis (Project GHGA Section 2.7). GHG regulatory setting of relevance to the Project is summarized below.

4.4.3.1 State of California

Overview

The State of California legislature has enacted a series of bills and associated actions, described below, that collectively act to reduce GHG emissions. Certain State legislation, such as Assembly Bill (AB 32) *California Global Warming Solutions Act of 2006*, was specifically enacted to address GHG emissions. Other State legislation, such as Title 24 and Title 20 energy standards, originally adopted for other purposes (energy and water conservation), also facilitate GHG emissions reductions. Additionally, California's

Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, Executive Orders set the tone for the State and guide the actions of State agencies.

AB 32. The California State Legislature enacted AB 32, which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. GHGs, as defined under AB 32, include carbon dioxide, methane, N₂O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The California Air Resources Board (CARB) is the State agency charged with monitoring and regulating sources of GHGs.

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by CARB for 2000 through 2012. The State has achieved the Executive Order S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. Substantial progress has also been made in achieving the State goal of reducing GHG emissions to 1990 levels by 2020.

CARB Scoping Plan. The CARB Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 and thereby comply with AB 32 GHG emissions reductions targets. The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors.

The CARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identifies progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and strategies. The Update does not set new targets for the State, but rather describes a path that would achieve the State's 2050 goal to achieve GHG emissions levels that are 80 percent below 1990 baseline levels.

As part of CEQA compliance for the Scoping Plan, CARB prepared a Supplemental Functional Equivalent Document (FED) in 2011. The FED included an updated 2020 BAU emissions inventory projection based on current economic forecasts (i.e., as influenced by the 2008 economic downturn) and emission reduction measures already in place, replacing its prior 2020 BAU emissions inventory. The updated BAU estimate of 507 MMTCO_{2e} by 2020 requires a reduction of 80 MMTCO_{2e}, or a 16 percent reduction below the estimated BAU levels to return to 1990 levels (i.e., 427 MMTCO_{2e}) by 2020.

To establish a BAU reduction scenario that is consistent with threshold definitions used in thresholds adopted by lead agencies for CEQA purposes and many climate action plans, the updated inventory without regulations was also included in the Supplemental FED. The updated CARB 2020 BAU projection in the Supplemental FED is 545 MMTCO_{2e}. Considering the updated BAU estimate of 545 MMTCO_{2e} by 2020, CARB estimates a 21.7 percent reduction below the estimated statewide BAU levels is necessary to return to 1990 emission levels.

2017 Climate Change Scoping Plan Update. In November 2017, CARB released the final 2017 Scoping Plan Update, which identifies the State's post-2020 reduction strategy. The 2017 Scoping Plan Update reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by Senate Bill 32 (SB 32). Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce methane emissions from agricultural and other wastes.

The 2017 Scoping Plan establishes a new emissions limit of 260 MMTCO_{2e} for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.

Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.

- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementing SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2017 Scoping Plan also recognizes local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB advocates local government attainment of a community-wide goal of 6 MMTCO₂e or less per capita by 2030, and 2 MMTCO₂e or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the extent feasible. Alternatively, a lead agency may employ performance-based metric using a climate action plan or other plan to reduce GHG emissions. Note, however, that the 2017 Scoping Plan specifically acknowledges that:

. . . [a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG

emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA (2017 Scoping Plan, p. 102).

Senate Bill 32. On September 8, 2016, Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, Assembly Bill (AB) 197. SB 32 requires the State to reduce statewide greenhouse gas emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15.

Cap-and-Trade Program. The Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020 and ultimately achieving an 80 percent reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap will be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program consistent with authority established under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32’s emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program’s duration.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce GHG emissions. If California’s direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California’s direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. In this manner, the

Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate.

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-State or imported. Accordingly, GHG emissions associated with a CEQA projects' electricity usage are covered by the Cap-and-Trade Program.

The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-State or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with vehicle-miles traveled (VMT) are covered by the Cap-and-Trade Program.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the Program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve sufficient GHG emissions reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.

SB 375 - the Sustainable Communities and Climate Protection Act of 2008. The Sustainable Communities and Climate Protection Act of 2008 (SB 375) implements the following measures: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Concerning CEQA, SB 375 as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493 Pavley Regulations and Fuel Efficiency Standards/Advanced Clean Cars Program. California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Initial CARB regulations and standards for 2009 – 2012 vehicles provided for an approximate 22 percent reduction in GHG emissions compared with the 2002 fleet GHG emissions. Initial CARB regulations and standards for 2013 – 2016 vehicles provided for an approximate 30 percent reduction in GHG emissions compared with the 2002 fleet GHG emissions.

The second phase of the Pavley bill, CARB Advanced Clean Cars Program, combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. By the year 2025, the Advanced Clean Cars Program will reduce GHGs from new cars by 34 percent from 2016 levels.

SB 350 - Clean Energy and Pollution Reduction Act of 2015. SB 350 reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

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

Executive Order B-55-18 and SB 100. Executive Order B-55-18 establishes a carbon neutrality goal for the State of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

SB 100 raises California's RPS requirement to 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030.

Executive Order S-3-05. Executive Order S-3-05 established the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07 – Low Carbon Fuel Standard. The California Low Carbon Fuel Standard (LCFS) contributes to State GHG emission reduction goals established under AB 32. THE LCFS program incentivizes adoption of low-carbon transportation fuels based on the fuel's lifecycle carbon intensity (CI). The current LCFS regulation became effective on January 1, 2016. In September 2018, CARB adopted regulatory amendments to extend the LCFS for an additional ten years with a target of 20% CI reduction from 2010 levels by 2030.

Executive Order S-13-08. The 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted pursuant to Executive Order S-13-08. The Strategy is “. . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing

risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15. Executive Order B-30-15 aligns California’s GHG reduction targets with those of leading international governments. The Executive Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO₂ equivalent (MMCO₂e). The Executive Order also requires the State’s climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions.

Title 20 Appliance Efficiency Standards. California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.

Title 24 Energy Efficiency Standards and California Green Building Standards. California Code of Regulations Title 24 Part 6: *California’s Energy Efficiency Standards for Residential and Nonresidential Buildings*, was first adopted in 1978 in response to a legislative mandate to reduce California’s energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Buildings permitted on or after January 1, 2020, must comply with the 2019 Energy Efficiency Standards.

California Code of Regulations, Title 24, Part 11: California Green Building Standards Code (CALGreen). CALGreen is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2011. CALGreen is updated on a regular basis, with the most recent update consisting of the 2019 California Green Building Code Standards. Under State law, local jurisdictions are permitted to adopt more stringent requirements. CALGreen requirements applicable to the Project would include those listed below. CALGreen Section citations are presented parenthetically.

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused

or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).

- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
 - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
 - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California

Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).

- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gal/day (5.303.1.1 and 5.303.1.2).
- Outdoor water use in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

CARB Refrigerant Management Program. CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, California Code of Regulations.

The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

Tractor-Trailer GHG Regulation. Tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers, or retrofit their existing fleet with SmartWay verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

Phase 1 and 2 Heavy-Duty Vehicle GHG Standards. CARB has adopted a new regulation for greenhouse gas (GHG) emissions from heavy-duty trucks and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the U.S. EPA rule for new trucks and engines nationally. Existing heavy-duty vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy Duty Tractor-Trailer Greenhouse Gas Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation.

CARB staff has worked jointly with the U.S. Environmental Protection Agency (U.S. EPA) and the National Highway Traffic Safety Administration (NHTSA) on the next phase of federal greenhouse gas (GHG) emission standards for medium- and heavy-duty vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later model year heavy-duty vehicles, including trailers.

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states “(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions

as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a).” Section 21097 was also added to the Public Resources Code.

Implementing SB 97, *CEQA Guidelines* Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. Section 15064.4 allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. *CEQA Guidelines* Section 15064.4 has been subsequently updated and clarified under the 2019 *CEQA Guidelines*.

4.4.3.2 South Coast Air Quality Management District

The Project lies within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. Relevant SCAQMD GHG policies and regulations are summarized below.

The SCAQMD *Draft Guidance Document – Interim CEQA GHG Significance Threshold Guidance Document* provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project’s construction emissions are averaged over 30 years and are added to the project’s operational

emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:

- o Residential and Commercial land use: 3,000 MTCO_{2e} per year.
- o Industrial land use: 10,000 MTCO_{2e} per year.
- o Based on land use type: residential: 3,500 MTCO_{2e} per year; commercial: 1,400 MTCO_{2e} per year; or mixed use: 3,000 MTCO_{2e} per year.
- Tier 4 has the following options:
 - o Option 1: Reduce BAU emissions by a certain percentage; this percentage is currently undefined.
 - o Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
 - o Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO_{2e}/SP/year for projects and 6.6 MTCO_{2e}/SP/year for plans.
 - o Option 3, 2035 target: 3.0 MTCO_{2e}/SP/year for projects and 4.1 MTCO_{2e}/SP/year for plans.
- Tier 5 involves mitigation offsets to achieve target significance threshold.

SCAQMD only has authority over GHG emissions from development projects that include air quality permits. Projects requiring stationary permits are subject to applicable SCAQMD regulations. SCAQMD Regulation XXVII, adopted in 2009 includes the following Rules addressing GHG emissions:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.

- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

4.4.3.3 City of Ontario

Community Climate Action Plan (CAP)

The City of Ontario Community Climate Action Plan (CAP) was adopted December 16, 2014. The CAP provides guidance addressing CEQA analysis of GHG emissions and determination of GHG impact significance. The CAP provides City-specific GHG information and City-specific GHG reduction measures. To address the State's requirement to reduce GHG emissions, the City CAP establishes the goal of reducing GHG emissions within the City by 15% below 2008 levels by the year 2020. The CAP GHG emissions reduction target is consistent with the AB 32 target and ensures that the City of Ontario achieves GHG reductions locally that complement and are consistent with State efforts to reduce GHG emissions.

As part of the CAP, the City of Ontario published a guidance document titled "Greenhouse Gas Emissions, CEQA Thresholds and Screening Tables" (December 2014) (Screening Tables). As part of this guidance, the City determined that if GHG emissions of a given project exceeds 3,000 MTCO₂e/yr., then project emissions would need to be reduced by 25 percent when compared to year 2008 emissions levels. Alternatively, the project would need to achieve a minimum of 100 points pursuant to measures identified in the Screening Tables.

The CAP also includes an update commitment beginning in 2018. The updated CAP will include a specific target for GHG reductions for 2030, 2040, and 2050. The targets will be consistent with broader State and federal reduction targets and will reflect contemporary scientific understanding of GHG reductions required by 2050. At the time of the Project GHG analysis, the City's CAP update is underway. The City is updating the Community Climate Action Plan as part of the Ontario Plan Update, anticipated to be completed in

2021. The City is in the process of developing an interim Development Screening Table and anticipate a draft of the Screening Tables will be available by summer/fall 2020. The City Community Climate Action Plan has been developed to be consistent with and support the SB 32 target of reducing GHG emissions by 40% below 1990 levels by 2030.

4.4.4 SOURCES OF PROJECT GHG EMISSIONS

4.4.4.1 Construction-Source GHG Emissions

Project construction activities would generate emissions of CO₂, CH₄. Project construction-source emissions are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by a 30-year project life, then adding that number to the annual operational GHG emissions. Accordingly, Project construction-source GHG emissions were amortized over a 30-year period and added to the annual operational-source GHG emissions of the Project.

4.4.4.2 Operational-Source GHG Emissions

Project operations would result in emissions of CO₂, CH₄, and N₂O from the primary sources listed below, and subsequently described.

- Area Sources;
- Building Energy Consumption (combustion emissions associated with natural gas and electricity);
- Mobile Sources;
- On-site Equipment (yard trucks) Operations;
- Transportation Refrigeration Units (TRUs);
- Water Supply, Treatment and Distribution; and
- Solid Waste Management.

Area Sources

Area sources would include landscape and site maintenance equipment. Landscape and site maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers.

Building Energy Consumption

CO₂ and other GHGs are emitted by building energy consumption. Natural gas or other fuels consumed at/within each Project building site would be direct sources of Project GHGs. GHGs are also emitted by off-site fuel consumption for production of electricity; these are considered to be indirect GHG emissions.

Mobile Sources

Project traffic (mobile sources) would also generate GHGs (CO₂, CH₄, and N₂O). Trip characteristics and vehicle miles traveled (VMT) estimates available from the Project TIA and Project VMT Assessment³ were utilized in estimating and modeling mobile source GHG emissions.

On-site Equipment Operations

Industrial warehouse buildings such as those proposed by the Project require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks and similar equipment are potential sources of GHGs.

³ *Merrill Commerce Center Specific Plan, Traffic Impact Analysis, City of Ontario* (Urban Crossroads, Inc.) March 30, 2020 (Project TIA); *Merrill Commerce Center Specific Plan, Vehicle Miles Traveled (VMT) Assessment* (Urban Crossroads, Inc.) January 14, 2020 (Project VMT Assessment). The Project TIA and Project VMT Assessment are provided at EIR Appendix C.

Transport Refrigeration Units (TRUs)

To account for the possibility of refrigerated uses being accommodated in PA1, PA2, PA3, PA4, PA5, and PA6, trucks accessing these PAs are assumed to also have transport refrigeration units (TRUs). The Project GHGA accounts for GHG emissions that would be generated by TRUs accessing the Project.

Water Supply, Treatment and Distribution Emissions

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water.

Solid Waste Management

The Project land uses will result in the generation and disposal of solid waste. A large percentage of solid waste generated by the Project would be diverted and recycled consistent with requirements of AB 39. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material.

4.4.5 PROJECT GHG EMISSIONS IMPACTS

4.4.5.1 California Emissions Estimator Model™ Employed to Estimate GHG Emissions

The latest version of the California Emissions Estimator Model (CalEEMod) v2016.3.2 has been used to estimate Project construction-source and operational-source criteria pollutant (VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}) and GHG emissions. CalEEMod calculates emissions from direct and indirect sources; and quantifies emissions reductions achieved from mitigation measures. Unless otherwise noted, CalEEMod default parameters have been employed in the quantification of GHG emissions.

4.4.5.2 Impact Statements

Potential Impact: *The Project could generate direct or indirect GHG emissions that would result in a significant impact on the environment.*

Impact Analysis: An individual project cannot generate GHG emissions sufficient to influence global climate change. A project participates in potential global climate change impacts through its incremental contribution, combined with the cumulative increase of all other sources of GHGs. Taken together, these effects may have a potentially significant impact on global climate change. Project GHG emissions from construction and operations are summarized at Table 4.4-3.

As indicated at Table 4.4-3, the Project would generate approximately 121,345.81 MTCO_{2e} per year. Of this total, approximately 36,053.35 MTCO_{2e} per year would be generated by construction activities, area sources, building energy consumption, on-site equipment, solid waste management and water supply. An additional 85,292.46 MTCO_{2e} per year would be generated by Project mobile sources.

**Table 4.4-3
Annual Project GHG Emissions**

| Emission Source | Emissions (metric tons per year) | | | |
|---|----------------------------------|-----------------|------------------|-------------------------|
| | CO ₂ | CH ₄ | N ₂ O | Total CO ₂ E |
| Annual construction-related emissions amortized over 30 years | 777.42 | 0.10 | 0.00 | 779.84 |
| Area Sources | 0.21 | 0.00 | 0.00 | 0.22 |
| Building Energy Consumption | 18,532.15 | 0.71 | 0.18 | 18,604.53 |
| Mobile Sources (Passenger Cars) | 20,520.14 | 0.54 | 0.00 | 26,633.74 |
| Mobile Sources (Trucks) | 58,606.26 | 2.09 | 0.00 | 58,658.72 |
| On-site Equipment | 1,524.89 | 0.49 | 0.00 | 1,537.22 |
| TRUs | 115.08 | 0.00 | 0.00 | 115.08 |
| Solid Waste Management | 871.06 | 100.53 | 0.00 | 4,214.31 |
| Water Supply | 8,732.05 | 64.05 | 1.57 | 10,802.14 |
| Total CO₂E (All Sources) | 121,345.81 | | | |

Source: Merrill Commerce Center Specific Plan, Greenhouse Gas Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

Note: Quantities may not sum to totals due to rounding.

Significance Determination

The CAP provides guidance addressing analysis of GHG emissions and CEQA significance determination of GHG emissions impacts. To address State requirements to reduce GHG emissions, the CAP establishes a City-wide GHG emissions reduction target of 15% below baseline (2008) GHG emissions levels by the year 2020. The CAP GHG emissions reduction target is consistent with the AB 32 target and ensures that the City will be providing GHG reductions locally that will complement State efforts to reduce GHG emissions. Because the City's CAP addresses GHG emissions reductions and is consistent with the requirements of AB 32 and international efforts to reduce GHG emissions, compliance with the CAP fulfills the description of mitigation found in the *CEQA Guidelines*.

CAP Appendix B *Greenhouse Gas Emissions CEQA Thresholds and Screening Tables* (CAP Screening Tables) establishes a point system that assigns values for each GHG emissions mitigation design element or operational program (feature) incorporated into a given development project. The Screening Tables point values correspond to the minimum GHG emissions reduction expected from each feature. Projects with features that yield at least 100 Screening Table points are considered consistent with the reduction quantities anticipated in the City's CAP. Such projects would be determined to have a less than significant individual and cumulative GHG emissions impact.

The CAP also includes an update commitment beginning in 2018. At the time of this analysis, the City's CAP update is underway. However, potential timeframes for approval and adoption of the City CAP update are unknown. The updated CAP will establish GHG emissions reduction targets for 2030, 2040, and 2050 scenarios. The established targets will be consistent with broader State and federal GHG emissions reduction targets and will reflect current scientific understanding of GHG emissions reduction strategies.

As discussed within the CAP, projects that generate less than 3,000 MTCO₂e/yr. would have a less-than-significant GHG emissions impact. Conversely, projects that generate more than 3,000 MTCO₂e/yr. are presumed to have a potentially significant GHG

emissions impact. Project GHG emissions would total approximately 121,345.81 MTCO_{2e}/yr., exceeding the CAP 3,000 MTCO_{2e}/yr. significance threshold. Per the CAP, this is a potentially significant impact.

Level of Significance: Potentially Significant.

Mitigation Measures:

- 4.4.1 *Project development proposals with building permit applications on file with the City prior to approval and adoption of updates to the December 16, 2014 CAP shall implement Screening Table Measures that achieve at least 100 points per the Screening Tables. The City shall verify that Screening Table Measures achieving the 100-point performance standard are incorporated in development plans prior to the issuance of building permit(s) and/or site plans (as applicable). The City shall verify implementation of the selected Screening Table Measures prior to the issuance of Certificate(s) of Occupancy. At the discretion of the City, measures that provide GHG reductions equivalent to GHG emissions reductions achieved via the Screening Table Measures may be implemented. Multiple development proposals may, at the discretion of the City, be allowed to collectively demonstrate achievement of at least 100 points per the Screening Tables.*
- 4.4.2 *Project development proposals with building permit applications on file with the City subsequent to approval and adoption of updates to the December 16, 2014 CAP shall comply with performance standards and GHG emissions reduction targets of the incumbent CAP. The City shall verify incorporation of measures that would achieve performance standards and GHG emissions reduction targets of the incumbent CAP prior to the issuance of building permit(s) and/or site plans (as applicable). The City shall verify implementation of applicable CAP provisions prior to the issuance of Certificate(s) of Occupancy. Multiple development proposals may, at the discretion of the City, be allowed to collectively demonstrate consistency with applicable provisions of the incumbent CAP.*

Level of Significance After Mitigation: *Significant and Unavoidable*. Mitigation measures identified in this analysis would act to ensure that to the extent feasible, the Project would not result in GHG emissions that would represent a significant impact on the environment. More specifically:

- Pursuant to Mitigation Measure 4.4.1, development proposals within the Project site with building permit applications on file with the City prior to approval and adoption of updates to the December 16, 2014 CAP shall implement Screening Table Measures that achieve at least 100 points per the CAP Screening Tables. Per the current CAP, projects that achieve at least 100 Screening Table points are determined to have a less-than-significant GHG emissions impact. However, the CAP as updated may implement performance standards and GHG emissions reduction targets differing from the current CAP. There is the potential for Project development proposals to conflict with as-yet-unknown performance standards and GHG emissions reduction targets implemented under the anticipated CAP updates, and thereby result in GHG emissions that would be considered to represent a significant impact on the environment. This analysis conservatively recognizes this as a significant and unavoidable impact.
- Pursuant to Mitigation Measure 4.4.2, development proposals within the Project site submitting building permit applications subsequent to approval and adoption of updates to the December 16, 2014 CAP shall comply with performance standards and GHG emissions reduction targets of the incumbent CAP. It is anticipated that demonstrated compliance with the CAP as updated would result in a determination of less-than-significant GHG emissions impacts. However, because the ultimate criteria for determination of GHG impact significance under the updated CAP are unknown at this time, this conclusion cannot be assured. On this basis, Project development proposals with building permit applications submitted subsequent to updates to the December 16, 2014 CAP could generate greenhouse gas emissions that would be considered to represent a significant impact on the environment. This analysis conservatively recognizes this as a significant and unavoidable impact.

Based on the preceding, there is the potential for the Project to generate GHG emissions that would result in significant impacts on the environment. *Pending adoption of the City CAP update; a determination that the City CAP as updated is consistent with applicable State and regional GHG emissions reduction plans; and a determination that Project development proposals are consistent with the CAP as updated, the potential for Project GHG emissions to result in a significant impact on the environment is considered to be a significant and unavoidable impact.*

Potential Impact: *The Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Impact Analysis: GHG emissions reduction plans, policies and regulations applicable to the Project include: AB 32, SB 32, (including related 2008/2017 ARB Scoping Plan Elements), and the City of Ontario CAP. Project consistency with AB 32, SB 32, (including related 2008/2017 ARB Scoping Plan Elements), and the City of Ontario CAP is summarized in the following discussions.

2008 Scoping Plan Consistency

The CARB Scoping Plan identifies strategies to reduce California's greenhouse gas emissions in support of AB 32. Many of the strategies identified in the Scoping Plan are not applicable at the project level, such as long-term technological improvements to reduce emissions from vehicles. Certain measures are applicable to and supported by the Project, such as energy conservation and energy efficiency measures. Other measures, while not directly applicable, would not be obstructed by impeded by Project implementation. Table 4.4-4 summarizes the Project's consistency with the State Scoping Plan measures. As indicated, the Project would not conflict with any of the provisions of the Scoping Plan and supports the Scoping Plan through energy efficiency, water conservation, recycling, and landscaping.

**Table 4.4-4
2008 Scoping Plan Consistency**

| Action Category | Supporting Measures | Remarks |
|---|----------------------------|--|
| Cap-and-Trade Program | -- | Consistent. These programs involve capping emissions from electricity generation and similar operations. The Project would not interfere with or obstruct cap-and-trade program measures or initiatives. |
| Light-Duty Vehicle Standards | T-1 | Consistent. Vehicles accessing the Project would be required to comply with these standards as implemented. Electric Vehicle (EV) charging stations would be installed on site per 2019 Title 24 standards. |
| Energy Efficiency | E-1 | Consistent. The Project would achieve building, water, and solid waste management efficiencies consistent with the incumbent CALGreen requirements. |
| | E-2 | |
| | CR-1 | |
| | CR-2 | |
| Renewables Portfolio Standard (RPS) | E-3 | Consistent. Establishes the minimum statewide renewable energy mix. The Project would not interfere with or obstruct RPS program measures or initiatives. |
| Low Carbon Fuel Standard | T-2 | Consistent. Establishes reduced carbon intensity (CI) of transportation fuels. The Project would not interfere with or obstruct transportation fuel CI program measures or initiatives. |
| Regional Transportation-Related GHG Targets | T-3 | Consistent. Establishes regional GHG transportation-source GHG emissions targets. The Project would not interfere with or obstruct transportation-related GHG target measures or initiatives. |
| Vehicle Efficiency Measures | T-4 | Consistent. Vehicles accessing the Project would be required to comply with these measures as implemented. The Project would not interfere with or obstruct vehicle efficiency measures or initiatives. |
| Goods Movement | T-5 | Consistent. Goods movement associated with the Project would be required to comply with these measures as implemented. The Project would not interfere with or obstruct goods movement measures or initiatives. |
| | T-6 | |
| Million Solar Roofs (MSR) Program | E-4 | Consistent. The MSR program sets a goal for use of solar systems throughout the State as a whole. The Project building designs would incorporate PV solar panels or would be designed to accept future installation of PV solar panels. |
| Medium- & Heavy-Duty Vehicles | T-7 | Consistent. Medium- & heavy-duty vehicles accessing the Project would be required to comply with these measures as implemented. The Project would not interfere with or obstruct medium- & heavy-duty vehicle measures or initiatives. |
| | T-8 | |

**Table 4.4-4
2008 Scoping Plan Consistency**

| Action Category | Supporting Measures | Remarks |
|---|---------------------|---|
| Industrial Emissions | I-1 | Consistent. These measures are applicable to large industrial facilities (> 500,000 MTCO _{2e} /yr.) and other intensive uses such as refineries. The Project would not interfere with or obstruct industrial emissions measures or initiatives. |
| | I-2 | |
| | I-3 | |
| | I-4 | |
| | I-5 | |
| High Speed Rail | T-9 | Consistent. Supports increased mobility choice via provision of high-speed rail. The Project would not interfere with or obstruct high speed rail measures or initiatives. |
| Green Building Strategy | GB-1 | Consistent. The Project would implement building, water, and solid waste management efficiencies consistent with incumbent CALGreen requirements. |
| High Global Warming Potential (GWP) Gases | H-1 | Consistent. The Project is not a substantial source of high GWP emissions. The Project would not interfere with or obstruct high GWP emissions measures or initiatives. |
| | H-2 | |
| | H-3 | |
| | H-4 | |
| | H-5 | |
| | H-6 | |
| | H-7 | |
| Recycling and Waste | RW-1 | Consistent. The Project would comply with mandated State and City recycling and waste management measures. Beyond these mandates, the Project demolition plan will be designed and implemented to yield a minimum of 90% recycled materials. |
| | RW-2 | |
| | RW-3 | |
| Sustainable Forests | F-1 | Consistent. The Project would promote carbon sequestration through provision of Project on-site landscaping. |
| Water | W-1 | Consistent. The Project would provide low-flow fixtures and water-efficient landscaping per City and State requirements. |
| | W-2 | |
| | W-3 | |
| | W-4 | |
| | W-5 | |
| | W-6 | |
| Agriculture | A-1 | Consistent. The Project is not an agricultural use. The Project would not interfere with or obstruct Scoping Plan agricultural measures or initiatives. |

Source: Merrill Commerce Center Specific Plan, Greenhouse Gas Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

SB 32/2017 Scoping Plan Consistency

The 2017 Scoping Plan Update reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. As summarized, at Table 4.4-5, the Project would support and would not conflict with SB 32/2017 Scoping Plan provisions.

**Table 4.4-5
2017 Scoping Plan Consistency**

| Action | Responsibility | Remarks |
|---|---|---|
| Implement SB 350 by 2030 | | |
| Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and ensure grid reliability. | CPUC, CEC, CARB | Consistent. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts. |
| Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. | | Consistent. The Project would be designed and constructed to implement the energy efficiency measures for new commercial developments and would include several measures designed to reduce energy consumption. The Project would not interfere with or obstruct policies or strategies to establish annual targets for statewide energy efficiency savings and demand reduction. |
| Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs. | | Consistent. The Project would be designed and constructed to implement energy efficiency measures acting to reduce electricity consumption. The Project includes energy efficient lighting and fixtures that meet the current Title 24 Standards. Further, the Project proposes contemporary industrial facilities that would incorporate energy efficient boilers, heaters, and air conditioning systems. |
| Implement Mobile Source Strategy (Cleaner Technology and Fuels) | | |
| At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025. | CARB, California State Transportation | Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug- |

**Table 4.4-5
2017 Scoping Plan Consistency**

| Action | Responsibility | Remarks |
|---|---|--|
| | Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies | in hybrid light-duty electric vehicle 2025 targets. |
| At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030. | | Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2030 targets. |
| Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations. | | Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations. |
| Medium- and Heavy-Duty GHG Phase 2. | | Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2 standards. |
| Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO _x standard. | | Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve transit-source emissions. |
| Last Mile Delivery: New regulation that would result in the use of low NO _x or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3-7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030. | | Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve last mile delivery emissions. |

**Table 4.4-5
2017 Scoping Plan Consistency**

| Action | Responsibility | Remarks |
|--|---|--|
| Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion." | | Consistent. The Project implements Transportation Demand Measures (TDMs) that would act to reduce VMT. Please refer to the Project VMT Assessment and EIR Section 4.2, <i>Transportation</i> . |
| Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets). | CARB | Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to increase stringency of SB 375 Sustainable Communities Strategy (2035 targets). |
| By 2019, adjust performance measures used to select and design transportation facilities | | |
| Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.). | CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans | Consistent. The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes. |

**Table 4.4-5
2017 Scoping Plan Consistency**

| Action | Responsibility | Remarks |
|---|---|--|
| By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts). | CalSTA, Caltrans, CTC, OPR, SGC, CARB | Consistent. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation. |
| Implement California Sustainable Freight Action Plan | | |
| Improve freight system efficiency. | CalSTA, CalEPA, CNRA, CARB, | Consistent. This measure would apply to all trucks accessing the Project site, this may include existing trucks or new trucks that are part of the statewide goods movement sector. The Project would not obstruct or interfere with agency efforts to improve freight system efficiency. |
| Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030. | Caltrans, CEC, GO-Biz | Consistent. The Project would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030. |
| Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent. | CARB | Consistent. When adopted, this measure would apply to all fuel purchased and used by the Project in the State. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent. |
| Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030 | | |
| 40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels. | CARB, CalRecycle, CDFA, SWRCB, Local Air Districts | Consistent. The Project would be required to comply with this measure and reduce any Project-source SLPS emissions accordingly. The Project would not obstruct or interfere with agency efforts to reduce SLPS emissions. |
| 50 percent reduction in black carbon emissions below 2013 levels. | | |
| By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLPS and SB 1383. | CARB, CalRecycle, CDFA SWRCB, Local Air Districts | Consistent. The Project would implement waste reduction and recycling measures consistent with State and City requirements. The Project would not obstruct or interfere with agency efforts to support organic waste landfill reduction goals in the SLPS and SB 1383. |

**Table 4.4-5
2017 Scoping Plan Consistency**

| Action | Responsibility | Remarks |
|--|--|---|
| Implement the post-2020 Cap-and-Trade Program with declining annual caps. | CARB | Consistent. The Project would be required to comply with any applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere with agency efforts to implement the post-2020 Cap-and-Trade Program. |
| By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink | | |
| Protect land from conversion through conservation easements and other incentives. | CNRA, Departments Within CDFA, CalEPA, CARB | Consistent. The Project site is designated for industrial uses. The Project does not propose land conversion. The Project would not obstruct or interfere with agency efforts to protect land from conversion through conservation easements and other incentives. |
| Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity. | | Consistent. The Project site is vacant disturbed property and does not comprise an area that would effectively provide for carbon sequestration. The Project would not obstruct or interfere with agency efforts to increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity. |
| Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments. | | Consistent. Where appropriate, Project designs will incorporate wood or wood products. The Project would not obstruct or interfere with agency efforts to encourage use of wood and agricultural products to increase the amount of carbon stored in the natural and built environments. |
| Establish scenario projections to serve as the foundation for the Implementation Plan. | | Consistent. The Project would not obstruct or interfere with agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan. |
| Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018. | CARB | Consistent. The Project would not obstruct or interfere with agency efforts to establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018. |
| Implement Forest Carbon Plan | CNRA, California Department of Forestry and Fire Protection (CAL FIRE), | Consistent. The Project would not obstruct or interfere with agency efforts to implement the Forest Carbon Plan. |

**Table 4.4-5
2017 Scoping Plan Consistency**

| Action | Responsibility | Remarks |
|--|---------------------------------|--|
| | CalEPA and Departments | |
| Identify and expand funding and financing mechanisms to support GHG reductions across all sectors. | State Agencies & Local Agencies | Consistent. The Project would not obstruct or interfere with agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors. |

Source: Merrill Commerce Center Specific Plan, Greenhouse Gas Analysis, City of Ontario (Urban Crossroads, Inc.) January 12, 2020.

City of Ontario Climate Action Plan Consistency

Per the City CAP, development projects that yield at least 100 Screening Table points (equivalent to an approximate 15% reduction in GHG emissions) are determined to be consistent with the reduction targets established in the City's GHG Technical Report, and consequently would be consistent with the CAP. Pursuant to Mitigation Measure 4.4.1, development proposals within the Project site would be required to achieve a minimum of 100 Screening Table points. On this basis, the Project would be consistent with the CAP in effect at the time this EIR was prepared.

It is however recognized that the City is currently updating the CAP. The CAP as updated may implement performance standards and GHG emissions reduction targets differing from the current CAP. There is the potential for Project development proposals to conflict with as-yet-unknown performance standards and GHG emissions reduction targets implemented under the CAP update(s). Moreover, it cannot be assured that the CAP as updated by the City would be determined to be consistent with applicable State and regional plans adopted for the for the purpose of reducing the emissions of greenhouse gases. These are potentially significant impacts.

Level of Significance: Potentially Significant.

Mitigation Measures: Please refer to Mitigation Measures 4.4.1, 4.4.2.

Level of Significance After Mitigation: *Significant and Unavoidable*. Mitigation measures identified in this analysis would act to ensure that to the extent feasible, the Project would be consistent with known and anticipated plans, policies, and regulation adopted for the purpose of reducing the emissions of greenhouse gases. More specifically:

- Pursuant to Mitigation Measure 4.4.1, development proposals within the Project site with building permit applications on file with the City prior to approval and adoption of updates to the December 16, 2014 CAP shall implement Screening Table Measures that achieve at least 100 points per the CAP Screening Tables. Projects that achieve 100 Screening Table points are considered consistent with the current CAP. The current CAP point system may not however satisfy or comply with GHG emissions reduction targets and methodologies established under the CAP update. This analysis conservatively recognizes this as a significant and unavoidable impact.
- Pursuant to Mitigation Measure 4.4.2, development proposals within the Project site submitting building permit applications subsequent to approval and adoption of updates to the December 16, 2014 CAP shall comply with performance standards and GHG emissions reduction targets of the incumbent CAP. By definition, these projects would be consistent with the incumbent CAP. However, the CAP as updated may not consistent with applicable State and regional plans adopted for the purpose of reducing the emissions of greenhouse gases. This analysis conservatively recognizes this as a significant and unavoidable impact.

Based on the preceding, there is the potential for the Project to conflict with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of greenhouse gases. *Pending adoption of the City CAP update; a determination that the City CAP as updated is consistent with applicable State and regional GHG emissions reduction plans; and a determination that Project development proposals are consistent with the CAP as updated, the potential for the Project to conflict plans, policies, and regulations adopted for the purpose of reducing GHGs is considered a significant and unavoidable impact.*

4.5 NOISE

4.5 NOISE

Abstract

This Section assesses whether the Project would substantially increase ambient noise levels, or expose land uses to noise, groundborne noise, or groundborne vibration levels exceeding established standards. In this regard, potential impacts considered within this Section include:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
- Generation of excessive groundborne vibration or groundborne noise; or*
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.*

As discussed within this Section, noise impacts associated with the construction of offsite infrastructure improvements would remain significant and unavoidable even with the application of mitigation. All other potential noise impacts of the Project are determined to be less-than-significant or can be mitigated to levels that are less-than-significant.

4.5.1 INTRODUCTION

This Section presents the noise setting, methodology, standards of significance, and potential noise impacts associated with the Project. Where impacts are determined to be potentially significant, mitigation measures are proposed to avoid or reduce the severity of impacts. The information presented herein has been summarized from the *Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario* (Urban Crossroads, Inc.) July 28, 2020 (Noise Impact Analysis). The Noise Impact Analysis in its entirety is presented at EIR Appendix F.

4.5.2 SETTING

Following are discussions of noise fundamentals applicable to the Project, together with assessments of existing ambient noise levels and noise sources in the Project vicinity.

4.5.2.1 Fundamentals of Noise

Noise levels are measured on a logarithmic scale in decibels which are then weighted and added over a 24-hour period to reflect not only the magnitude of the sound, but also its duration, frequency, and time of occurrence. In this manner, various acoustical scales and units of measurement have been developed including equivalent sound levels (Leq), day-night average sound levels (Ldn) and community noise equivalent levels (CNEL).

“A-weighted” decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against the very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. The decibel scale has a value of 0.0 dBA at the threshold of hearing and 120 dBA at the threshold of pain. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. Thus, a 1.0 decibel increase is just audible, whereas a 10-decibel increase means the sound is perceived as being twice as loud as before. Examples of the decibel level of various noise sources are provided in the following Figure 4.5-1.

| COMMON OUTDOOR ACTIVITIES | COMMON INDOOR ACTIVITIES | A - WEIGHTED SOUND LEVEL dBA | SUBJECTIVE LOUDNESS | EFFECTS OF NOISE |
|---|---|-------------------------------------|---------------------------------|----------------------------|
| THRESHOLD OF PAIN | | 140 | INTOLERABLE OR DEAFENING | HEARING LOSS |
| NEAR JET ENGINE | | 130 | | |
| | | 120 | | |
| JET FLY-OVER AT 300m (1000 ft) | ROCK BAND | 110 | | |
| LOUD AUTO HORN | | 100 | VERY NOISY | SPEECH INTERFERENCE |
| GAS LAWN MOWER AT 1m (3 ft) | | 90 | | |
| DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph) | FOOD BLENDER AT 1m (3 ft) | 80 | LOUD | |
| NOISY URBAN AREA, DAYTIME | VACUUM CLEANER AT 3m (10 ft) | 70 | | |
| HEAVY TRAFFIC AT 90m (300 ft) | NORMAL SPEECH AT 1m (3 ft) | 60 | MODERATE | SLEEP DISTURBANCE |
| QUIET URBAN DAYTIME | LARGE BUSINESS OFFICE | 50 | | |
| QUIET URBAN NIGHTTIME | THEATER, LARGE CONFERENCE ROOM (BACKGROUND) | 40 | FAINT | NO EFFECT |
| QUIET SUBURBAN NIGHTTIME | LIBRARY | 30 | | |
| QUIET RURAL NIGHTTIME | BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND) | 20 | | |
| | BROADCAST/RECORDING STUDIO | 10 | VERY FAINT | |
| LOWEST THRESHOLD OF HUMAN HEARING | LOWEST THRESHOLD OF HUMAN HEARING | 0 | | |

Source: Urban Crossroads, Inc.

Figure 4.5-1
Typical Noise Levels

Noise Rating Schemes

Equivalent sound levels are not measured directly but rather are calculated from sound pressure levels typically measured in dBA. The equivalent sound level (Leq) is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for both the Ldn and CNEL scales.

Day-night average sound levels (Ldn) are a measure of the cumulative noise exposure of the community. The Ldn value results from a summation of hourly Leqs over a 24-hour time period with an increased weighting factor applied to the nighttime period between 10:00 p.m. and 7:00 a.m. This noise rating scheme takes into account those subjectively more annoying noise events which occur during normal sleep hours.

Community noise equivalent levels (CNEL) also carry a weighting penalty for noise that occurs during the nighttime hours. In addition, CNEL levels include a penalty for noise events that occur during the evening hours between 10:00 p.m. and 7:00 a.m. Because of the weighting factors applied, CNEL values at a given location will always be larger than Ldn values, which in turn will exceed Leq values. However, CNEL values are typically within one decibel of the Ldn value.

Sound Propagation

For a “line source” of noise such as a heavily traveled roadway, the noise level drops off by a nominal value of 3.0 decibels for each doubling of distance between the noise source and the noise receiver. The nominal value of 3.0 dBA with doubling applies to sound propagation from a line source: (1) over the top of a barrier greater than 3 meters in height; or (2) where there is a clear unobstructed view of the highway, the ground is hard, no intervening structures exist and the line-of-sight between the noise source and receiver averages more than three meters above the ground.

Notwithstanding, environmental factors such as wind conditions, temperature gradients, characteristics of the ground (hard or soft) and the air (relative humidity), and the presence of vegetation combine to typically increase the attenuation achieved outside

laboratory conditions to approximately 4.5 decibels per doubling of distance. The increase in noise attenuation in exterior environments is particularly true: (1) for freeways with an elevated or depressed profile or exhibiting expanses of intervening buildings or topography; (2) where the view of a roadway is interrupted by isolated buildings, clumps of bushes, scattered trees; (3) when the intervening ground is soft or covered with vegetation; or (4) where the source or receiver is located more than three meters above the ground.

In an area which is relatively flat and free of barriers, the sound level resulting from a single “point source” of noise drops by six decibels for each doubling of distance or 20 decibels for each factor of ten in distance. This applies to fixed noise sources and mobile noise sources which are temporarily stationary, such as an idling truck or other heavy-duty equipment operating within a confined area (such as industrial processes or construction).

Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source.

4.5.2.2 Factors Affecting Motor Vehicle Noise

According to the Highway Traffic Noise Analysis and Abatement Policy and Guidance, provided by the Federal Highway Administration (FHWA), the level of traffic noise depends on three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mixes on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts

will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway.

Ground-effect noise attenuation is reflected in the Project Noise Study. For acoustically absorptive conditions (e.g., where the source – receptor intervening surface comprises soft dirt, grass, scattered bushes and trees or similar), a ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the noise cylindrical spreading characteristics, the excess ground attenuation results in an overall attenuation rate of 4.5 dB per doubling of distance from a line noise source.¹ Per FHWA guidance, use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis.²

4.5.2.3 Community Responses to Noise

Approximately 10 percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another 25 percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1.0 dBA cannot be perceived except in carefully controlled laboratory experiments. A 3.0 dBA increase may be perceptible outside of the laboratory. An increase of 5.0 dBA is often necessary before any noticeable change in community response (i.e., complaints) would be expected.

¹ FHWA. "Highway Traffic Noise: Analysis and Abatement Guidance." *Federal Highway Administration*, www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf. p. 10. Accessed 25 Nov. 2019.

² *Highway Traffic Noise Analysis and Abatement Policy and Guidance* (FHWA) June 1995, p. 4.

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon each individual's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise-producing activities;
- Noise receptor's perception that they are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Receptor's belief that the noise source can be controlled.

Recent studies have shown that changes in long-term noise levels are noticeable and are responded to by people. For example, about 10 percent of the people exposed to traffic noise of 60 Ldn will report being highly annoyed with the noise, and each increase of one Ldn is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 Ldn or aircraft noise exceeds 55 Ldn, people begin complaining. Group or legal actions to stop the noise should be expected to begin at traffic noise levels near 70 Ldn and aircraft noise levels near 65 Ldn.

4.5.2.4 Land Use Compatibility with Noise

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches and residences are more sensitive to noise intrusion than are commercial or industrial activities. As ambient noise levels affect the perceived amenity or liveability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process.

4.5.2.5 Current Noise Exposure

To assess the existing noise level environment, ten long-term noise level measurements were taken at receiver locations in the Project study area. The noise level measurement locations were selected to describe and document the existing noise environment within the Project study area. Figure 4.5-2 illustrates the locations of the measurement locations.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND:
 ▲ Noise Measurement Locations

N
 NOT TO SCALE
 Source: Urban Crossroads, Inc.

Figure 4.5-2
 Noise Measurement Locations

The long-term noise level measurements were positioned at the nearest noise sensitive receiver locations to assess the existing ambient hourly noise levels surrounding the Project site. The selected receivers represent a location of noise sensitive areas, and also represent noise modeling locations used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels. The results of the long-term noise level measurements are presented at Table 4.5-1.

**Table 4.5-1
Ambient Noise Level Measurements**

| Location | Description | Energy Average Noise Level (dBA Leq) | | Average Median Noise Level (dBA Leq) | | CNEL |
|----------|---|--------------------------------------|-----------|--------------------------------------|-----------|------|
| | | Daytime | Nighttime | Daytime | Nighttime | |
| L1 | Located on Edison Avenue, northwest of the Project site, near existing vacant rural-residential homes and agricultural land use. | 71.4 | 69.1 | 61.1 | 53.3 | 76.1 |
| L2 | Located on Edison Avenue, north of the Project site, near existing rural-residential homes and agricultural land use. | 69.8 | 66.7 | 62.7 | 52.1 | 73.9 |
| L3 | Located on Walker Avenue, north of the Project site, near existing rural-residential homes and agricultural land use. | 60.9 | 55.3 | 51.3 | 45.4 | 63.2 |
| L4 | Located on Eucalyptus Avenue, near the northwestern boundary of the Project site, adjacent to existing rural-residential homes and agricultural land use. | 70.6 | 66.9 | 55.7 | 47.7 | 74.2 |
| L5 | Located on Eucalyptus Avenue, near the northern boundary of the Project site, adjacent to existing rural-residential homes and agricultural land use. | 67.5 | 64.7 | 57.1 | 54.9 | 71.8 |
| L6 | Located on Eucalyptus Avenue, near the northeastern boundary of the Project site, adjacent to existing rural-residential homes and agricultural land use. | 61.5 | 58.2 | 49.3 | 43.4 | 65.5 |

**Table 4.5-1
Ambient Noise Level Measurements**

| Location | Description | Energy Average Noise Level (dBA Leq) | | Average Median Noise Level (dBA Leq) | | CNEL |
|----------|---|--------------------------------------|-----------|--------------------------------------|-----------|------|
| | | Daytime | Nighttime | Daytime | Nighttime | |
| L7 | Located on Eucalyptus Avenue, near the northeastern boundary of the Project site, adjacent to existing rural-residential homes and agricultural land use. | 58.2 | 56.1 | 48.5 | 42.0 | 63.0 |
| L8 | Located on Grove Avenue, west of the Project site, adjacent to existing rural-residential homes and agricultural land use. | 71.5 | 69.6 | 61.9 | 52.4 | 76.5 |
| L9 | Located on Grove Avenue, near the southwestern boundary of the Project site, adjacent to existing rural-residential homes and agricultural land use. | 75.3 | 72.3 | 65.3 | 59.6 | 79.5 |
| L10 | Located on Merrill Avenue, near the southern boundary of the Project site, adjacent to existing rural-residential homes and agricultural land use. | 67.1 | 62.7 | 58.9 | 48.9 | 70.3 |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

Sensitive Receptors

Land uses classified as noise-sensitive by the State of California include: schools, hospitals, rest homes, long-term care centers, and mental care facilities. Some jurisdictions also consider day care centers, single-family dwellings, mobile home parks, churches, libraries, and recreation areas to be noise-sensitive. Moderately noise-sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, outpatient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs.

Land uses which are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space,

undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

4.5.2.6 Vibration

According to the Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure borne noise. Sources of groundborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration is often described in units of velocity (inches per second), and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts are generally associated with activities such as train operations, construction and heavy truck movements.

The background vibration-velocity level in residential areas is generally 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

4.5.3 EXISTING POLICIES AND REGULATIONS

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source

of environmental noise. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

4.5.3.1 State of California

General Plan Noise Element Requirement

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to "limit the exposure of the community to excessive noise levels." In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

California Building Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

4.5.3.2 City of Ontario

The City of Ontario General Plan (Policy Plan) identifies several policies to minimize the impacts of excessive noise levels throughout the community. Policy Plan Section S4, *Noise Hazards*, establishes a goal of maintaining an environment where noise does not adversely affect the public's health, safety, and welfare. To satisfy this goal, the Policy Plan identifies six policies related to: noise mitigation; coordination with transportation authorities; airport noise mitigation; truck traffic; roadway design; and airport noise compatibility. The Policy Plan provides guidelines to evaluate land use compatibility within various noise environments, as illustrated at Figure 4.5-3.

The Project land uses are considered clearly acceptable within exterior noise level environments approaching 70 dBA CNEL and normally acceptable within noise level environments up to 80 dBA CNEL. For noise level environments greater than 80 dBA CNEL, the Project land uses would be considered normally unacceptable and new construction is discouraged.

4.5.3.3 City of Chino





The City of Chino has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of Chino from excessive exposure to noise. In addition, the Noise Element identifies noise polices designed to protect, create, and maintain an environment free from noise that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life.

To protect Chino residents from excessive noise, the Noise Element establishes the following objectives:

- N-1.1 Ensure appropriate exterior and interior noise levels for existing and new land uses.
- N-1.2 Reduce noise impacts from transportation.
- N-1.3 Control sources of construction noise.

| LAND USE CATEGORIES | | COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) | | | | | |
|-----------------------------|--|---|--------|--------|--------|--------|--------|
| Category | Land Use | 55 | 60 | 65 | 70 | 75 | 80 |
| Residential/ Lodging | Single Family / Duplex | Green | Green | Yellow | Orange | Red | Red |
| | Multi-Family | Green | Green | Yellow | Orange | Orange | Red |
| | Mobile Homes | Green | Green | Yellow | Red | Red | Red |
| | Hotel/Motels | Green | Green | Green | Yellow | Orange | Orange |
| Public/Institutional | Schools/Hospitals | Green | Green | Yellow | Orange | Red | Red |
| | Churches/ Libraries | Green | Green | Yellow | Orange | Red | Red |
| | Auditoriums/Concert Halls | Green | Yellow | Orange | Orange | Red | Red |
| Commercial | Offices | Green | Green | Green | Yellow | Yellow | Orange |
| | Retail | Green | Green | Green | Green | Yellow | Orange |
| Industrial | Manufacturing | Green | Green | Green | Green | Yellow | Orange |
| | Warehousing | Green | Green | Green | Green | Yellow | Yellow |
| Recreational/ Open Space | Parks/Playgrounds | Green | Green | Green | Yellow | Orange | Red |
| | Golf Courses/ Riding Stables | Green | Green | Green | Yellow | Orange | Red |
| | Outdoor Spectator Sports | Green | Green | Yellow | Orange | Orange | Red |
| | Outdoor Music Shells/ Amphitheaters | Yellow | Yellow | Orange | Red | Red | Red |
| | Livestock/Wildlife Preserves | Green | Green | Green | Green | Orange | Red |
| | Crop Agriculture | Green | Green | Green | Green | Green | Green |

LEGEND

- 
Clearly Acceptable: No special noise insulation required, assuming buildings of normal conventional construction.
- 
Normally Acceptable: Acoustical reports will be required for major new residential construction. Conventional construction with closed windows and fresh air supply systems of air conditioning will normally suffice.
- 
Normally Unacceptable: New construction should be discouraged. Noise/aviation easements required for all new construction. If new construction does proceed, a detailed analysis of noise reduction requirements must be made and necessary noise insulation features included.
- 
Clearly Unacceptable: No new construction should be permitted.

Source: Urban Crossroads, Inc.; City of Ontario General Plan

Figure 4.5-3
Land Use Compatibility Guidelines

The noise policies specified in the City of Chino Noise Element provide guidelines necessary to satisfy these objectives. The Noise Element also establishes policies to reduce noise impacts from transportation sources (e.g., vehicular noise emanating from surface roads and freeways, aircraft/airport noise, railroad noise sources). These policies include the use of street and right-of-way design, roadway alignment, noise barriers, and pavement surface treatments.

4.5.4 STANDARDS OF SIGNIFICANCE

Based on the noise criteria presented above, and direction provided within the *CEQA Guidelines* as implemented by the Ontario, Project noise impacts would be considered potentially significant if the Project is determined to result in or cause the following conditions:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generation of excessive groundborne vibration or groundborne noise.
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Construction-Source Noise Significance Criteria

Noise Ordinance Standards

Project construction-source noise that would exceed noise standards established by ordinance would be considered potentially significant. Project construction-source noise could affect properties in the City of Ontario and the City of Chino. The City of Ontario does not identify specific construction-source noise level limits. The City of Chino Municipal Code does however establish construction-source noise criteria. These criteria

are considered relevant to the analysis presented here and are employed in evaluating potential construction-source noise impacts.

The City of Chino Noise Ordinance Section 9.40.060(D) provides that . . . “[n]oise sources associated with or vibration created by construction, repair, remodeling or grading of any real property or during authorized seismic surveys, provided said activities do not take place outside the hours for construction as defined in Section 15.44.030 of this code, and provided the noise standard of sixty-five dBA plus the limits specified in Section 9.40.040(B) as measured on residential property . . .” For the purposes of this analysis, Project construction-source noise exceeding 65 dBA at receiving noise-sensitive land uses would be considered potentially significant.

Contributions to Ambient Conditions

The City of Ontario and City of Chino do not define what would comprise a substantial noise contribution to ambient conditions. Within this analysis, consideration is given to the magnitude of noise level increases, ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a potentially significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant.³ There is however, no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. An important way of determining a person’s subjective reaction to noise is by measuring incremental effects of additional or new noise sources within the existing or *ambient* noise environment.

For the purposes of this analysis, when considering temporary construction-source noise contributions to ambient conditions, relevant State-level guidance was reviewed. More specifically, Caltrans’ May 2011 Traffic Noise Analysis Protocol identifies a relative noise

³ *Gray v. County of Madera*, F053661. 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.

increase of 12 dBA Leq as substantial. While the Caltrans 12 dBA Leq threshold was not created specifically to address construction-source noise, it is applied in this analysis as a reasonable threshold to assess temporary noise level increases during Project construction.

Operational-Source Noise Significance Criteria

Noise Ordinance Standards (Area Sources)

Project operational-source noise that would exceed noise standards established by ordinance would be considered potentially significant. Project operational-source noise could affect properties in the City of Ontario and/or City of Chino. Relevant City of Ontario and City of Chino Noise Ordinance criteria is presented at Table 4.5-2.

Table 4.5-2
City of Ontario and City of Chino
Noise Ordinance Standards (Operations)

| City | Land Use | Time Period | Exterior Noise Levels (dBA Leq) ³ | | | | | |
|----------------------|-------------|-------------|--|------------------------------|------------------------------|----------------------------|---------------------------|-------------------------------|
| | | | Leq (E. Avg.) | L ₅₀ (30 mins) | L ₂₅ (15 mins) | L ₈ (5 mins) | L ₂ (1 min) | L _{max} (Anytime) |
| Ontario ¹ | Residential | Daytime | 65 | - | 65 | - | - | 85 |
| | | Nighttime | 45 | - | 45 | - | - | 65 |
| Chino ² | Residential | Daytime | - | 55 | 60 | 65 | 70 | 75 |
| | | Nighttime | - | 50 | 55 | 60 | 65 | 70 |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

Notes:

¹ Section 5-29.04 of the City of Ontario Municipal Code.

² Section 9.40.040 of the City of Chino Municipal Code.

³ dBA Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The percent noise level is the level exceeded "n" percent of the time during the measurement period. L₂₅ is the noise level exceeded 25% of the time.

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "E. Avg." = logarithmic (energy) average

Contributions to Ambient Conditions (Area Sources and Traffic)

For the purposes of evaluating long-term operational noise increases, Federal Interagency Committee on Noise (FICON) guidance has been employed in this analysis. FICON guidance is based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON guidance was specifically developed to assess aircraft noise impacts, this guidance is often used in environmental

noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}). FICON guidance is employed in this analysis when considering the significance of incremental noise increases in the context of ambient conditions, as summarized at Table 4.5-3.

**Table 4.5-3
Incremental Noise Contribution Significance Criteria**

| Analysis | Significance Criteria | |
|---------------------------------------|---|--|
| Operational Noise- Traffic | Contributions to Ambient Conditions | |
| | if ambient is < 60 dBA CNEL | ≥ 5 dBA CNEL Project increase |
| | if ambient is 60 - 65 dBA CNEL | ≥ 3 dBA CNEL Project increase |
| | if ambient is > 65 dBA CNEL | ≥ 1.5 dBA CNEL Project increase |
| | if ambient is < 70 dBA CNEL (non-sensitive land uses only) | ≥ 5 dBA CNEL Project increase |
| | if ambient is > 70 dBA CNEL (non-sensitive land uses only) | ≥ 3 dBA CNEL Project increase |
| Operational Noise- Area Sources | Contributions to Ambient Conditions | |
| | if ambient is < 60 dBA L_{eq} | ≥ 5 dBA L_{eq} Project increase |
| | if ambient is 60 - 65 dBA L_{eq} | ≥ 3 dBA L_{eq} Project increase |
| | if ambient is > 65 dBA L_{eq} | ≥ 1.5 dBA L_{eq} Project increase |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

Vibration Criteria

The City of Ontario does not identify specific vibration level limits. The City of Chino Municipal Code does however establish vibration standards. These standards (identified below) are considered relevant to the analysis presented here and are employed in evaluating potential vibration impacts.

Construction-Source Vibration Criteria

The City of Chino Noise Ordinance Section 9.40.060(D) provides that vibration created by construction activities is exempt from provisions of the Ordinance, if any construction-source vibration does not endanger the public health, welfare, and safety. As a conservative measure, this analysis employs the City of Chino's more restrictive operational-source vibration standard (0.05 inches RMS vertical velocity) when evaluating construction-source noise impacts. Under this criteria, perceptible vibration would be considered potentially significant. Please refer to related discussion below.

Operational-Source Vibration Criteria

City of Chino Noise Ordinance Section 9.40.110 - *Vibration*, states in pertinent part:

It is unlawful for any person to create, maintain or cause any ground vibration which is perceptible without instruments at any point on any affected property adjoining the property on which the vibration source is located. For the purpose of this chapter, the perception threshold shall be presumed to be more than 0.05 inches per second (root mean square–RMS) vertical velocity.

For the purposes of this analysis, received operational-source vibration exceeding 0.05 inches per second RMS would be considered potentially significant.

Summary

Significance criteria employed in this analysis are summarized at Table 4.5-4. These criteria reflect applicable City of Ontario and City of Chino noise/vibration standards, state and federal noise impact analysis protocols, and significance/threshold guidance provided at *CEQA Guidelines* Appendix G. Please refer also to related discussions presented at Project Noise Study Section 4.3, *Significance Criteria Summary*.

**Table 4.5-4
Significance Criteria Summary**

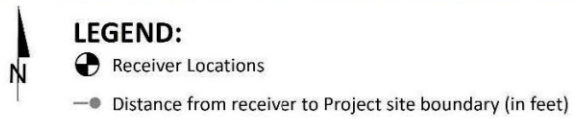
| Analysis | Jurisdiction | Significance Criteria | |
|---------------------------------------|--------------|---|------------------------------------|
| Operational Noise- Traffic | All | Contributions to Ambient Conditions | |
| | | if ambient is < 60 dBA CNEL | ≥ 5 dBA CNEL Project increase |
| | | if ambient is 60 - 65 dBA CNEL | ≥ 3 dBA CNEL Project increase |
| | | if ambient is > 65 dBA CNEL | ≥ 1.5 dBA CNEL Project increase |
| | | if ambient is < 70 dBA CNEL (non-sensitive land uses only) | ≥ 5 dBA CNEL Project increase |
| | | if ambient is > 70 dBA CNEL (non-sensitive land uses only) | ≥ 3 dBA CNEL Project increase |
| Operational Noise- Area Sources | All | Contributions to Ambient Conditions | |
| | | if ambient is < 60 dBA Leq | ≥ 5 dBA Leq Project increase |
| | | if ambient is 60 - 65 dBA Leq | ≥ 3 dBA Leq Project increase |
| | | if ambient is > 65 dBA Leq | ≥ 1.5 dBA Leq Project increase |
| Construction Noise | All | Ordinance Standards | > 65 dBA Leq |
| | | Contributions to Ambient Conditions | > 12 dBA Leq |
| Vibration | All | Ordinance Standards (City of Chino) | > 0.05 in/sec RMS |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

4.5.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.5.5.1 Introduction

Potential noise impacts of the Project are assessed in the following discussions. Potential impacts are evaluated under applicable criteria established at previous Section 4.5.4, *Standards of Significance*. Potential impacts of on-site construction-source and operational-source noise were evaluated at the receivers described below and identified at Figure 4.5-4.



Source: Urban Crossroads, Inc.

Figure 4.5-4
Receiver Locations

- R1: Located approximately 185 feet north of the Project site, R1 represents an existing residential home serving the Gordon Hay Inc. Dairy in the City of Ontario. A 24-hour noise level measurement was taken near this location, L4, to describe the existing ambient noise environment.
- R2: Location R2 represents vacant unoccupied agricultural land located approximately 151 feet north of the Project site in the City of Ontario. A 24-hour noise level measurement was taken near this location, L5, to describe the existing ambient noise environment.
- R3: Located approximately 94 feet east of the Project site across Carpenter Avenue, R3 represents existing residential homes serving the Tiva Dairy in the City of Ontario. L7 represents the nearest 24-hour noise level measurement taken near this location to describe the existing ambient noise environment.
- R4: Location R4 represents the existing residential home located at 9131 Merrill Avenue located approximately 129 feet southeast of the Project site. The 24-hour noise level measurement location L7 is used to describe the existing ambient noise environment.
- R5: Located approximately 135 feet south of the Project, R5 represents a couple of existing residential homes serving the J&D Star Dairy. A 24-hour noise level measurement was taken near this location, L10, to describe the existing ambient noise environment.
- R6: Located approximately 142 feet west of the Project site, R6 represents an existing residential home located at 14848 Grove Avenue. A 24-hour noise level measurement was taken near this location, L9, to describe the existing ambient noise environment.

R7: Location R7 represents the existing residential home located roughly 127 feet west of the Project site across Grove Avenue. A 24-hour noise level measurement was taken near this location, L8, to describe the existing ambient noise environment.

R8: Located approximately 114 feet west of the Project site, R8 represents an existing residential home located at 14544 Grove Avenue. A 24-hour noise level measurement was taken near this location, L8, to describe the existing ambient noise environment.

4.5.5.2 Impact Statements

Potential Impact: *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.*

Impact Analysis: The following discussions of potential noise impacts are organized to reflect categories or types of noise sources, including Construction-Source Noise, Operational/Area-Source Noise, and Vehicular-Source Noise.

Construction-Source Noise

On-site Project Construction Activities – Noise Standards Compliance

Reference noise level measurements were used to describe the typical construction activity noise levels for each Project construction stage. The construction reference noise level measurements represent a list of typical construction activity noise levels and can be found at Table 10-1 of the Project Noise Study. Project construction would include the following activities:

- Demolition
- Site Preparation
- Grading
- Building Construction

- Paving
- Architectural Coating

Using the reference construction equipment noise levels, Project construction-source noise levels (by activity) received at potentially affected receiver locations were estimated, as summarized at Table 4.5-5.

**Table 4.5-5
Received Construction-Source Noise Levels by Activity (Unmitigated)**

| Receiver Location | Construction Noise Levels by Activity (dBA Leq) | | | | | | |
|-------------------|---|------------------|---------|-----------------------|--------|-----------------------|----------------------------------|
| | Demolition | Site Preparation | Grading | Building Construction | Paving | Architectural Coating | Highest Construction Noise Level |
| R1 | 60.5 | 52.8 | 62.1 | 56.8 | 60.2 | 56.1 | 62.1 |
| R2 | 62.3 | 54.6 | 63.9 | 58.6 | 62.0 | 57.9 | 63.9 |
| R3 | 66.4 | 58.7 | 68.0 | 62.7 | 66.1 | 62.0 | 68.0 |
| R4 | 63.7 | 56.0 | 65.3 | 60.0 | 63.4 | 59.3 | 65.3 |
| R5 | 63.3 | 55.6 | 64.9 | 59.6 | 63.0 | 58.9 | 64.9 |
| R6 | 62.8 | 55.1 | 64.4 | 59.1 | 62.5 | 58.4 | 64.4 |
| R7 | 63.8 | 56.1 | 65.4 | 60.1 | 63.5 | 59.4 | 65.4 |
| R8 | 64.7 | 57.0 | 66.3 | 61.0 | 64.4 | 60.3 | 66.3 |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

As shown above, received unmitigated construction-source noise levels are expected to range from 62.1 to 68.0 dBA Leq. Table 4.5-6 summarizes the Project construction-source noise level ordinance compliance at potentially affected receivers.

**Table 4.5-6
Received Construction-Source Noise Levels:
On-site Construction Activities (Unmitigated)**

| Receiver Location | Land Use | Maximum Received Construction-Source Noise Levels (dBA Leq) | Threshold (dBA Leq) | Threshold Exceeded? |
|-------------------|--------------|---|---------------------|---------------------|
| R1 | Residential | 62.1 | 65 | No |
| R2 | Agricultural | 63.9 | n/a | No |
| R3 | Residential | 68.0 | 65 | Yes |
| R4 | Residential | 65.3 | 65 | Yes |

**Table 4.5-6
Received Construction-Source Noise Levels:
On-site Construction Activities (Unmitigated)**

| Receiver Location | Land Use | Maximum Received Construction-Source Noise Levels (dBA Leq) | Threshold (dBA Leq) | Threshold Exceeded? |
|-------------------|-------------|---|---------------------|---------------------|
| R5 | Residential | 64.9 | 65 | No |
| R6 | Residential | 64.4 | 65 | No |
| R7 | Residential | 65.4 | 65 | Yes |
| R8 | Residential | 66.3 | 65 | Yes |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

Noise generated by on-site Project construction activities would exceed the applicable 65 dba Leq construction noise standard at receiver locations R3, R4, R7, and R8. On this basis, construction-source noise impacts at receiver locations R3, R4, R7, and R8 would be potentially significant.

Level of Significance: Potentially Significant.

Mitigation Measures:

- 4.5.1 *Provide a minimum 150-foot buffer distance between large construction equipment (e.g. dozers, graders, scrapers, etc.) and receiver locations R3, R4, R7 and R8, if residences at these locations are occupied and actively used at the time Project demolition and/or grading activities occur.*
- 4.5.2 *If a 150-foot buffer is not achievable, install temporary noise control barriers that provide a minimum noise level attenuation of 10.0 dBA when Project demolition or grading activities occur within 150 feet of existing residential structures, or other off-site sensitive land uses that are occupied and actively utilized. General noise control barrier design parameters are presented below, though any solution(s) providing the required 5.0 dBA noise attenuation is/are acceptable.*
- *The noise control barrier should present a generally solid face from top to bottom. Unnecessary openings should not be made.*

- *The noise control barrier shall be maintained and any damage in the barrier or openings between the barrier and the ground shall be promptly repaired.*
- *The noise control barrier(s) and associated elements shall be removed and affected portion(s) of the site restored at the conclusion of grading/demolition activities.*

4.5.3 *Alternatively, the Applicant may employ construction equipment and construction techniques that would demonstrably ensure that noise levels at potentially affected sensitive receptors would not exceed 65 dBA. A combination of noise-receptor separation, noise barriers and use of noise reducing construction equipment and construction techniques may be employed provided that noise levels at potentially affected receptors does not exceed 65 dBA.*

Level of Significance After Mitigation: Less-Than-Significant. Received noise levels at potentially affected locations reflecting a minimum 150-foot source-receptor buffer per Mitigation Measure 4.5.1 are presented at Table 4.5-7. Alternative Mitigation Measures 4.5.2, 4.5.3 would provide similar or superior mitigated conditions.

**Table 4.5-7
Received Construction-Source Noise Levels:
On-site Construction Activities (Mitigated)**

| Receiver Location | Maximum Received Unmitigated Noise Level (dBA Leq) | 150 Foot Buffer Noise Attenuation (dBA Leq) | Maximum Received Mitigated Noise Level (dBA Leq) | Threshold (dBA Leq) | Threshold Exceeded |
|--------------------------|---|--|---|----------------------------|---------------------------|
| R3 | 68.0 | -4.0 | 64.0 | 65 | No |
| R4 | 65.3 | -1.3 | 64.0 | 65 | No |
| R7 | 65.4 | -1.4 | 64.0 | 65 | No |
| R8 | 66.3 | -2.3 | 64.0 | 65 | No |

Source: *Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.*

Offsite Infrastructure Construction-Source Noise-Noise Standards Compliance

The Project would construct off-site infrastructure conveyance and distribution improvements for water, sewer, recycled water, storm drainage and fiber optics. The concept plans for the necessary infrastructure improvements are generally limited to the right-of-way of existing roadway segments. The installation of each of these services has

the potential to generate off-site construction noise level impacts to neighboring noise sensitive land uses. Using reference construction equipment noise levels, the noise levels associated with the off-site infrastructure improvements are presented at Table 4.5-8.

**Table 4.5-8
Received Construction-Source Noise Levels:
Off-site Infrastructure Construction Activities**

| Roadway | Classification (# of lanes) | Distance to Adjacent Land Use | Received Noise Level |
|-----------------|--|-------------------------------|----------------------|
| Archibald Ave. | Eastvale-Major Arterial (Expressway) (6) | 110' | 68.5 |
| Archibald Ave. | Ontario-Principal Arterial (6) | 60' | 73.7 |
| Eucalyptus Ave. | Ontario-Collector (4) | 44' | 76.4 |
| Euclid Ave. | Chino-Major Arterial (Expressway) (8) | 84' | 70.8 |
| Euclid Ave. | Ontario-Principal Arterial (8) | 84' | 70.8 |
| Grove Ave. | Ontario-Principal Arterial (4) | 50' | 75.3 |
| Grove Ave. | Ontario-Principal Arterial (6) | 60' | 73.7 |
| Merrill Ave. | Ontario-Collector (4) | 44' | 76.4 |
| Walker Ave. | Ontario-Collector (2) | 44' | 76.4 |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

Maximum received infrastructure construction noise levels are estimated at 75.3 dBA Leq 50 feet from the source. A review of the off-site study area roadway segments indicates that the centerline distance to adjacent land uses range from 44 to 110 feet. As shown at Table 4.5-8, this translates into unmitigated infrastructure construction noise levels ranging from 68.5 to 76.4 dBA Leq at the adjacent land uses nearest the planned infrastructure routes. These received noise levels exceed the acceptable construction noise standard of 65 dBA Leq. The potential for off-site infrastructure construction activities to generate noise exceeding applicable standards would therefore be potentially significant.

Level of Significance Before Mitigation: Potentially Significant.

Mitigation Measures:

- 4.5.4 *Off-site infrastructure improvement plans and construction documents shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 6:00 p.m. any weekday, or on Saturday or Sunday from 9:00 a.m. to 6:00 p.m. (City of Ontario Municipal Code, Section 5-29.09).*
- 4.5.5 *Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. Construction contractors shall place all stationary construction equipment so that emitted noise is directed away from the nearest noise sensitive receivers.*
- 4.5.6 *Construction contractors shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers.*
- 4.5.7 *Construction contractors shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 6:00 p.m. any weekday, or on Saturday or Sunday from 9:00 a.m. to 6:00 p.m.). Contractors shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.*

Level of Significance After Mitigation: Significant and Unavoidable. Implementation of the above measures would reduce off-site construction-source noise levels at potentially affected receptors. However, the degree of reduction cannot be assured, and is subject to varied source-receptor distances, numbers and types of equipment used, variable terrain and weather conditions and other factors beyond control of the Applicant. For the purposes of this analysis, even with the application of mitigation, noise generated by construction of off-site infrastructure is assumed to exceed the applicable 65 dBA Leq noise standard, and would be significant and unavoidable.

Construction-Source Noise – Contributions to Ambient Conditions

To describe the temporary Project construction noise level contributions to the existing ambient noise environment, the Project construction noise levels were combined with the existing ambient noise levels measurements at the off-site receiver locations. The difference between the combined Project-construction and ambient noise levels are used to describe the construction noise level contributions. Temporary noise level increases that would be experienced at sensitive receiver locations when Project construction-source noise is added to the ambient daytime conditions are presented at Table 4.5-9.

Table 4.5-9
Construction-Source Noise Contributions to Ambient Conditions (Unmitigated)

| Receiver Location | Project Construction Noise Level | Measurement Location | Reference Ambient Noise Levels | Combined Project and Ambient | Temporary Worst-Case Project Contribution | Threshold Exceeded? |
|-------------------|----------------------------------|----------------------|--------------------------------|------------------------------|---|---------------------|
| R1 | 62.1 | L4 | 70.6 | 71.2 | 0.6 | No |
| R2 | 63.9 | L6 | 61.5 | 65.9 | 4.4 | No |
| R3 | 68.0 | L7 | 58.2 | 68.4 | 10.2 | No |
| R4 | 65.3 | L7 | 58.2 | 66.1 | 7.9 | No |
| R5 | 64.9 | L10 | 71.4 | 72.3 | 0.9 | No |
| R6 | 64.4 | L9 | 75.3 | 75.6 | 0.3 | No |
| R7 | 65.4 | L8 | 71.5 | 72.5 | 1.0 | No |
| R8 | 66.3 | L8 | 71.5 | 72.6 | 1.1 | No |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

As indicated at Table 4.5-9, the Project would contribute unmitigated construction-source noise levels ranging from 0.6 to 10.2 dBA Leq. The maximum contribution to ambient conditions (10.2 dBA Leq) would not exceed the 12 dBA Leq contribution significance threshold. Project construction-source noise contributions to ambient conditions would therefore not be substantial and the impact would be less-than-significant.

Level of Significance: Less-Than-Significant.

Operational-Source Noise

Area-Source Noise – Noise Standards Compliance

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project, including cold storage loading dock activities, distribution/warehouse activities, roof-top air conditioning units, and parking lot vehicle movements. Based upon the reference noise levels (presented at Table 9-1 of the Noise Impact Analysis), it is possible to estimate the Project operational stationary-source noise levels at each of the sensitive receiver locations. Table 4.5-10 presents the Project area-source noise levels at nearby receivers in the context of applicable noise standards.

**Table 4.5-10
Noise Threshold and Received Area-Source Noise Levels (Unmitigated)**

| | City | Noise Standards | | | | | | |
|-------------------|---------|---|------------------------------|------------------------------|----------------------------|---------------------------|------------------------------|---------------------|
| | | Leq (Hourly) | L ₅₀ (30 mins) | L ₂₅ (15 mins) | L ₈ (5 mins) | L ₂ (1 min) | L _{max} (<1 min) | |
| Daytime | Ontario | 65 | - | 65 | - | - | 85 | |
| Nighttime | | 45 | - | 45 | - | - | 65 | |
| Daytime | Chino | - | 55 | 60 | 65 | 70 | 75 | |
| Nighttime | | - | 50 | 55 | 60 | 65 | 70 | |
| Receiver Location | City | Noise Level at Receiver Locations (dBA) | | | | | | Threshold Exceeded? |
| | | Leq (Hourly) | L ₅₀ (30 mins) | L ₂₅ (15 mins) | L ₈ (5 mins) | L ₂ (1 min) | L _{max} (<1 min) | |
| R1 | Ontario | 48.2 | - | 48.0 | - | - | 60.5 | Yes |
| R2 | Ontario | 49.2 | - | 48.9 | - | - | 61.4 | Yes |
| R3 | Ontario | 53.1 | - | 53.7 | - | - | 63.5 | Yes |
| R4 | Ontario | 47.7 | - | 47.4 | - | - | 60.0 | Yes |
| R5 | Chino | - | 50.7 | 52.0 | 53.1 | 54.9 | 61.8 | Yes |
| R6 | Ontario | 51.1 | - | 51.7 | - | - | 61.5 | Yes |
| R7 | Ontario | 50.7 | - | 51.3 | - | - | 61.2 | Yes |
| R8 | Ontario | 49.4 | - | 49.2 | - | - | 61.7 | Yes |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

Table 4.5-10 shows that Project area-source noise levels at potentially affected receivers would exceed applicable noise standards. Unmitigated Project operational area-source noise would therefore be potentially significant.

Level of Significance Before Mitigation: Potentially Significant.

Mitigation Measures:

- 4.5.8 *Cold storage loading dock activities and distribution/warehouse facilities shall be designed so that truck bays and loading docks are a minimum of 300 feet away from the property line of sensitive receivers, measured from the dock building door. This distance may be reduced if the site design includes berms or other similar features to appropriately shield and buffer the sensitive receivers from the active truck operations areas.*
- 4.5.9 *Cold storage loading dock activities and distribution/warehouse facilities shall be designed to provide adequate on-site parking for commercial trucks and passenger vehicles and on-site queuing for trucks that is away from sensitive receivers. The general queuing and spillover of trucks onto surrounding public streets shall be prevented. Commercial trucks shall not be parked in the public road right-of-way or nearby residential areas.*
- 4.5.10 *All Project PA systems shall be oriented to direct sound away from sensitive receivers. PA volumes shall be set such that received noise levels not readily audible past the property line.*
- 4.5.11 *Individual development proposals within the Project site shall demonstrate to the satisfaction of the Lead Agency that noise impacts generated by such proposals would not exceed or be substantially different than noise impacts considered and addressed in the Project Noise Impact Analysis.*

Level of Significance After Mitigation: Less-Than-Significant. As indicated at Table 4.5-11, with the incorporation of Mitigation Measures 4.5.8 through 4.5.11, Project area-source noise at potentially affected receivers would comply with applicable standards.

As mitigated, Project operational area-source would not exceed applicable standards and would be less-than-significant.

**Table 4.5-11
Noise Thresholds and Received Area-Source Noise Levels (Mitigated)**

| | City | Noise Standards | | | | | | |
|-------------------|---------|---|------------------------------|------------------------------|----------------------------|---------------------------|------------------------------|---------------------|
| | | L _{eq} (Hourly) | L ₅₀ (30 mins) | L ₂₅ (15 mins) | L ₈ (5 mins) | L ₂ (1 min) | L _{max} (<1 min) | |
| Daytime | Ontario | 65 | - | 65 | - | - | 85 | |
| Nighttime | | 45 | - | 45 | - | - | 65 | |
| Daytime | Chino | - | 55 | 60 | 65 | 70 | 75 | |
| Nighttime | | - | 50 | 55 | 60 | 65 | 70 | |
| Receiver Location | City | Noise Level at Receiver Locations (dBA) | | | | | | Threshold Exceeded? |
| | | L _{eq} (Hourly) | L ₅₀ (30 mins) | L ₂₅ (15 mins) | L ₈ (5 mins) | L ₂ (1 min) | L _{max} (<1 min) | |
| R1 | Ontario | 37.3 | - | 37.2 | - | - | 50.5 | No |
| R2 | Ontario | 37.9 | - | 37.8 | - | - | 51.3 | No |
| R3 | Ontario | 38.5 | - | 38.2 | - | - | 52.5 | No |
| R4 | Ontario | 37.7 | - | 37.6 | - | - | 51.0 | No |
| R5 | Chino | 38.0 | 35.0 | 37.8 | 42.3 | 46.2 | 51.7 | No |
| R6 | Ontario | 37.8 | - | 37.7 | - | - | 51.1 | No |
| R7 | Ontario | 38.0 | - | 37.8 | - | - | 51.8 | No |
| R8 | Ontario | 37.9 | - | 37.7 | - | - | 51.4 | No |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

Area-Source Noise – Contributions to Ambient Conditions

To describe the Project operational area-source noise level contributions, the Project operational noise levels were combined with the ambient noise levels measurements at potentially affected receiver locations. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented at Tables 4.5-12 and 4.5-13, respectively.

Table 4.5-12
Project Daytime Operational Area-Source Noise Contributions

| Receiver Location | Total Project Operational Noise Level (dBA Leq) | Measurement Location | Reference Ambient Noise Levels (dBA Leq) | Combined Project and Ambient (dBA Leq) | Project Increase (dBA Leq) | Threshold (dBA Leq) | Threshold Exceeded? |
|-------------------|---|----------------------|--|--|----------------------------|---------------------|---------------------|
| R1 | 48.2 | L4 | 70.6 | 70.6 | 0.0 | 1.5 | No |
| R2 | 49.2 | L6 | 61.5 | 61.7 | 0.2 | 3.0 | No |
| R3 | 53.1 | L7 | 58.2 | 59.4 | 1.2 | 5.0 | No |
| R4 | 47.7 | L7 | 58.2 | 58.6 | 0.4 | 5.0 | No |
| R5 | 51.4 | L10 | 67.1 | 67.2 | 0.1 | 1.5 | No |
| R6 | 51.1 | L9 | 75.3 | 75.3 | 0.0 | 1.5 | No |
| R7 | 50.7 | L8 | 71.5 | 71.5 | 0.0 | 1.5 | No |
| R8 | 49.4 | L8 | 71.5 | 71.5 | 0.0 | 1.5 | No |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

Table 4.5-13
Project Nighttime Operational Area-Source Noise Contributions

| Receiver Location | Total Project Operational Noise Level (dBA Leq) | Measurement Location | Reference Ambient Noise Levels (dBA Leq) | Combined Project and Ambient (dBA Leq) | Project Increase (dBA Leq) | Threshold (dBA Leq) | Threshold Exceeded? |
|-------------------|---|----------------------|--|--|----------------------------|---------------------|---------------------|
| R1 | 48.2 | L4 | 66.9 | 67.0 | 0.1 | 1.5 | No |
| R2 | 49.2 | L6 | 58.2 | 58.7 | 0.5 | 5.0 | No |
| R3 | 53.1 | L7 | 56.1 | 57.9 | 1.8 | 5.0 | No |
| R4 | 47.7 | L7 | 56.1 | 56.7 | 0.6 | 5.0 | No |
| R5 | 51.4 | L10 | 62.7 | 63.0 | 0.3 | 3.0 | No |
| R6 | 51.1 | L9 | 72.3 | 72.3 | 0.0 | 1.5 | No |
| R7 | 50.7 | L8 | 69.6 | 69.7 | 0.1 | 1.5 | No |
| R8 | 49.4 | L8 | 69.6 | 69.6 | 0.0 | 1.5 | No |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

As indicated at Tables 4.5-12, 4.5-13, the Project would generate an unmitigated daytime operational noise level increase of up to 1.2 dBA Leq, and an unmitigated nighttime operational noise level increase of up to 1.8 dBA Leq at the nearby receiver locations. These operational noise level contributions would not exceed the operational noise level increase significance criteria, and impacts would therefore be less-than-significant.

Level of Significance: Less-Than-Significant.

Vehicular-Source Noise

To assess vehicular-source noise impacts associated with development of the Project, noise contours were developed based on information presented in the *Merrill Commerce Center Specific Plan Traffic Impact Analysis*. As discussed at Section 3.4.3, *Development Concept*, and illustrated at Figure 3.4-4, *Phasing Concept*, the Project is anticipated to be implemented in 3 Phases – “A,” “B,” and “C”. As such, noise contours were developed for the following traffic conditions:

- Existing (2019)
- Existing plus Project (E+P), with analysis broken down for:
 - Phase A: Planning Areas 4 and 5
 - Phase A + Phase B: where Phase B is Planning Areas 1, 2, 3, and 6
 - Phase A + Phase B + Phase C: where Phase C is Planning Areas 1A, 3A, 4A, 5A, and 6A
- Opening Year Cumulative (2022) Without Project
- Opening Year Cumulative (2022) With Project (Phase A)
- Opening Year Cumulative (2025) Without Project
- Opening Year Cumulative (2025) With Project (Phase A + Phase B)
- Opening Year Cumulative (2026) Without Project
- Opening Year Cumulative (2026) With Project (Project Buildout – All 3 Phases)
- Horizon Year (2040) Without Project
- Horizon Year (2040) With Project (Project Buildout – All 3 Phases)

Noise contours were used to assess the Project’s incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. Project noise contours are presented at Table 7-1 through 7-12 of the Project Noise Impact Analysis. Based on the noise contours, the following paragraphs summarize the vehicular-source noise impacts of the Project. Please also refer to Tables 7-13 through 7-19 of the Noise Impact Analysis.

Existing (2019) Phase A Traffic Noise Level Contributions

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project Phase A has been included for informational purposes only. The analysis of existing traffic noise levels plus traffic noise generated by the proposed Project scenario will not actually occur since the Project would not be fully constructed and operational until Year 2026. Existing without Project exterior noise levels are expected to range from 66.2 to 83.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Existing with Project Phase A conditions will range from to 83.7 dBA CNEL. Project Phase A conditions will generate a noise level increase of up to 1.0 dBA CNEL on the study area roadway segments.

Existing (2019) Phase A+B Traffic Noise Level Contributions

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project Phase A+B has been included for informational purposes only. The analysis of existing traffic noise levels plus traffic noise generated by the proposed Project scenario will not actually occur since the Project would not be fully constructed and operational until Year 2026. Existing with Project Phase A+B conditions will range from 66.2 to 84.0 dBA CNEL. Project Phase A+B will generate a noise level increase of up to 2.5 dBA CNEL on the study area roadway segments.

Existing (2019) Phase A+B+C Traffic Noise Level Contributions

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project Phase A+B+C has been included for informational purposes only. The analysis of existing traffic noise levels plus traffic noise generated by the proposed Project scenario will not actually occur since the Project would not be fully constructed and operational until Year 2026. Existing with Project Phase A+B+C conditions will range from 66.9 to 84.1 dBA CNEL. Project Phase A+B+C will generate a noise level increase of up to 3.0 dBA CNEL on the study area roadway segments.

Opening Year 2022 Phase A Traffic Noise Level Contributions

Opening Year 2022 without Project conditions CNEL noise levels are expected to range from 67.1 to 84.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Opening Year 2022 with Project Phase A conditions will range from 67.1 to 84.2 dBA CNEL. Project Phase A will generate a noise level increase of up to 0.9 dBA CNEL on the study area roadway segments. The maximum received noise levels would affect non-sensitive land uses. This Project-related noise level increase would not exceed applicable Project incremental increase threshold (≥ 3.0 dBA CNEL received at non-sensitive land uses) identified at Table 4.5-3. Project vehicular-source noise impacts would therefore be less-than-significant under Opening Year 2022 with Project Phase A Conditions. Please refer also to Project Noise Impact Analysis Table 7-16.

Opening Year 2025 Phase A+B Traffic Noise Level Contributions

Opening Year 2025 without Project conditions CNEL noise levels are expected to range from 67.8 to 84.5 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Opening Year 2025 with Project Phase A+B conditions will range from 67.8 to 84.8 dBA CNEL. Project Phase A+B will generate a noise level increase of up to 2.0 dBA CNEL on the study area roadway segments. The maximum received noise levels would affect non-sensitive land uses. This Project-related noise level increase would not exceed applicable Project incremental increase threshold (≥ 3.0 dBA CNEL received at non-sensitive land uses) identified at Table 4.5-3. Project vehicular-source noise impacts would therefore be less-than-significant under Opening Year 2025 with Project Phase A+B Conditions. Please refer also to Project Noise Impact Analysis Table 7-17.

Opening Year 2026 Phase A+B+C Traffic Noise Level Contributions

Opening Year 2026 without Project conditions CNEL noise levels are expected to range from 68.0 to 84.5 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Opening Year 2026 with Project Phase A+B+C conditions will range from 68.4 to 85.0 dBA CNEL. Project Phase A+B+C will generate a noise level increase of up to 2.3 dBA CNEL on the study area roadway segments. The maximum received noise levels would affect non-sensitive land uses. This Project-related noise level increase would not exceed applicable Project incremental increase threshold (≥ 3.0 dBA

CNEL received at non-sensitive land uses) identified at Table 4.5-3. Project vehicular-source noise impacts would therefore be less-than-significant under Opening Year 2026 with Project Phase A+B+C Conditions. Please refer also to Project Noise Impact Analysis Table 7-18.

Horizon Year 2040 Phase A+B+C Traffic Noise Level Contributions

Horizon Year 2040 without Project conditions CNEL noise levels are expected to range from 68.2 to 85.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Horizon Year 2040 with Project Phase A+B+C conditions will range from 69.4 to 85.4 dBA CNEL. Project Phase A+B+C will generate a noise level increase of up to 2.2 dBA CNEL on the study area roadway segments. The maximum received noise levels would affect non-sensitive land uses. This Project-related noise level would not exceed applicable Project incremental increase threshold (≥ 3.0 dBA CNEL received at non-sensitive land uses) identified at Table 4.5-3. Project vehicular-source noise impacts would therefore be less-than-significant under Horizon Year 2040 with Project Phase A+B+C Conditions. Please refer also to Project Noise Impact Analysis Table 7-19.

Level of Significance: Less-Than-Significant.

Potential Impact: *Generation of excessive groundborne vibration or groundborne noise.*

Impact Analysis:

Construction-Source Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that groundborne vibration from Project construction activities would cause only intermittent, localized intrusion. The vibration analysis shows the highest construction vibration levels in root-mean-square (RMS) velocity are expected to approach 0.009 in/sec RMS at the nearby receiver locations. Since the City of Ontario does not identify specific vibration level thresholds, the vibration level threshold used in this analysis is based on the City of Chino 0.05 in/sec RMS standard. The construction

vibration analysis shows that the Project construction activities will satisfy the vibration standard of 0.05 in/sec RMS at all receiver locations during Project construction.

Further, the Project-related construction vibration levels do not represent levels capable of causing building damage to nearby residential homes. The FTA identifies construction vibration levels capable of building damage ranging from 0.12 to 0.5 in/sec PPV. The peak Project-construction vibration levels, approaching 0.012 in/sec PPV, will not exceed the FTA vibration levels for building damage at the residential uses near the Project site.

Further, the impacts at the site of the closest sensitive receivers are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. Construction at the Project site will be restricted to daytime hours consistent with City requirements thereby eliminating potential vibration impact during the sensitive nighttime hours.

Operational-Source Vibration

Project operations would include heavy trucks moving onsite to and from the loading dock areas. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Typical vibration levels for the Merrill Commerce Center Specific Plan heavy truck activity at normal traffic speeds will approach 0.012 in/sec root-mean-square (RMS) velocity at 25 feet based on the Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment. Trucks transiting on-site will be travelling at very low speeds. Delivery truck vibration impacts at nearby homes would therefore not exceed the City of Chino 0.05 in/sec RMS vibration level standard.

Level of Significance: Less-Than-Significant.

Potential Impact: *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.*

Impact Analysis: The Project site is located roughly 1,000 feet northeast of Chino Airport Runway 3-21. The Los Angeles/Ontario International Airport (LA/Ont) is located approximately 4.3 miles northerly of the Project site.

The City of Ontario is currently developing a Compatibility Plan for Chino Airport (Compatibility Plan) that relies on procedures and requirements outlined in *California Airport Land Use Planning Handbook* (State of California Department of Transportation, Division of Aeronautics) October 2011 (*Handbook*). As provided for in the *Handbook* “alternative process” the City functions as the Designated Agency in formulating airport land use compatibility plans for City properties. The Compatibility Plan is based on the *Handbook Generic Safety Zones for General Aviation Airports*.

See also: <https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf>

For compatibility planning purposes, the noise contours reflecting 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 requisite 20-year forecast period (2039) (Compatibility Plan, n.p.).

Only the 55 dB CNEL contour affects lands within the City of Ontario. Since the affected area [including the Project site] is planned for future industrial uses, no significant impacts are anticipated (Compatibility Plan, n.p.). Further, conventional construction methods employed in construction of development proposals within the Project site would eliminate potentially adverse noise intrusion upon indoor spaces. In this regard, standard building construction practices required under the State of California Green Building Standards Code (CALGreen) typically provide up to 25 dBA CNEL of attenuation. With respect to noise generated by Chino Airport facilities and activities, application of standard CALGreen construction practices would yield acceptable Project interior noise levels approximating 35 dBA CNEL.

The Project site is also within the airport influence area of LA/ONT. Based on the LA/Ontario International Airport Land Use Compatibility Plan, industrial land uses located outside of the 60 dBA CNEL noise level contours of LA/ONT (such as the Project) are considered a normally compatible land use and must reduce interior noise levels to 50 dBA CNEL. With respect to noise generated by LA/ONT facilities and activities, application of standard CALGreen construction practices would yield acceptable Project interior noise levels approximating 35 dBA CNEL. The Project does not propose facilities or operations that would exacerbate any adverse airport-source noise conditions.

Based on the preceding, the potential for the Project to result in or cause expose people residing or working in the Project area to excessive airport-source noise levels would be less-than-significant.

Level of Significance: Less-Than-Significant.

4.6 HAZARDS/HAZARDOUS MATERIALS

4.6 HAZARDS/HAZARDOUS MATERIALS

Abstract

This Section identifies and addresses potential hazards and hazardous materials impacts that may result from the implementation and operations of the Project. More specifically, the hazards and hazardous materials analysis presented here examines whether the Project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;*
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;*
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for the people residing or working in the project area; or*
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.*

Additionally, as discussed in the EIR Initial Study (EIR Appendix A), the Project's potential impacts under the following topic were previously determined to be less-than-significant, and are not further substantively discussed here:

- *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.*

As supported by the analysis presented in this Section, with the application of mitigation, and the Project's mandated compliance with existing rules and regulations, potential hazards and hazardous materials impacts of the Project are less-than-significant.

4.6.1 INTRODUCTION

The analysis presented in this Section addresses the potential impacts of hazards and/or hazardous materials associated with the construction and operation of the proposed Merrill Commerce Center Specific Plan Project. The analysis considers potential hazards/hazardous conditions affecting the Project site; and also considers potential hazards resulting from the Project, including potential effects at off-site land uses.

The Specific Plan area is comprised of five properties, referred to herein as the Borba, Liberty, Minaberry, Lanting, and Alewyn properties. Figure 4.6-1 illustrates the location of each of these properties within the Project site.

Information presented in this Section is summarized in part from the following documents:

- *Phase I Environmental Site Assessment, Borba Land Phase II (189 acres), 14545 South Grove Avenue, Ontario, California 91762 (Partner Engineering and Science, Inc.) May 2, 2017;*
- *Limited Phase II Subsurface Investigation and Limited Methane Investigation Report, Borba Land Phase II (189 acres) 14545 South Grove Avenue, Ontario, California 91762 (Partner Engineering and Science, Inc.) June 26, 2017;*



NOT TO SCALE
 Source: Google Earth; Applied Planning, Inc.

----- Project Site Boundary

Figure 4.6-1
 On-site Properties

- *Phase I Environmental Site Assessment, GH Dairy Farm, 8643 Eucalyptus Avenue, Ontario, San Bernardino County, California (AECOM) April 13, 2017;*
- *Limited Phase II Environmental Site Assessment, GH Dairy, 8643 Eucalyptus Avenue, Ontario, San Bernardino County, CA (AECOM) June 12, 2017;*
- *Phase I Environmental Site Assessment Report, Minaberry Land, 8731 Eucalyptus Avenue, Ontario, California 91762 (Partner Engineering and Science, Inc.) February 28, 2017;*
- *Limited Methane Investigation Report, 8731 Eucalyptus Avenue, Ontario, California 91762 (Partner Engineering and Science, Inc.) May 31, 2017;*
- *Phase I Environmental Site Assessment Report, Lanting Land, 9032 Merrill Avenue and 8911 Eucalyptus Avenue, Ontario, California 91762 (Partner Engineering and Science, Inc.) August 24, 2018;*
- *Limited Phase II Subsurface Investigation and Limited Methane Investigation Report, Lanting Land, 9032 Merrill Avenue, Ontario, California 91762 (Partner Engineering and Science, Inc.) August 31, 2018;*
- *Phase I Environmental Site Assessment Report, Alewyn Land, 9031 Eucalyptus Avenue, Ontario, California 91762 (Partner Engineering and Science, Inc.) August 2, 2018;*
and
- *Limited Methane Investigation Report, Alewyn Land, 9031 Eucalyptus Avenue, Ontario, California 91762 (Partner Engineering and Science, Inc.) August 31, 2018;*

These documents are presented in their entirety as EIR Appendix G.

4.6.2 SETTING

The physical setting of the Project provided here serves as context for potential hazards associated with, or resulting from, the Project.

4.6.2.1 Project Site Land Use

The Project site currently contains a variety of land uses including a dairy farm, cattle stockades, and trucking operations on the eastern side of the Project site. The site also includes ancillary support equipment for cattle and dairy farming, bio-retention basins located at the southern boundary, and appurtenant residences at various locations throughout the Project site.

4.6.2.2 Project Site History

Based on historical research conducted as part of the Phase I ESAs, the Project site was historically used for agricultural uses beginning in the late 1930s. By the late 1960s, the site had transitioned to dairy uses.

4.6.2.3 Vicinity Land Uses

The Project site is bound by Eucalyptus Avenue and agricultural land uses to the north; Merrill Avenue, agricultural land uses, logistics warehouses, the Chino Airport, and vacant land to the south; Grove Avenue and agricultural land uses to the west; and Carpenter Avenue and a dairy operation to the east.

4.6.3 EXISTING HAZARDS/HAZARDOUS CONDITIONS

Existing hazardous conditions affecting the Project site and surrounding areas have been identified within the previously-referenced environmental documents. Results and findings of those documents are summarized below.

4.6.3.1 Potential Project Site Hazards

Potential on-site hazards discussed below are categorized by property, based on the studies listed previously at Section 4.6.1. All of the properties described below lie within Merrill Commerce Center Specific Plan area.

Borba Property

The Phase I ESA prepared for this portion of the Project site (*Phase I Environmental Site Assessment, Borba Land Phase II (189 acres), 14545 South Grove Avenue, Ontario, California 91762* [Partner Engineering and Science, Inc.] May 2, 2017) identified the following concerns:

- Animal waste from the long-term dairy farm uses have potentially created methane gas, and soil contamination from nitrates and ammonia.
- Numerous automotive fluids, including several large above ground storage tanks (ASTs) on or near the on-site maintenance shop. These materials are used for maintaining and repairing farm equipment.
- Additional ASTs used for truck and equipment refueling are located on-site.
- A scrap metal area containing drums, ASTs, farming equipment, and vehicles is located on the property.
- The property is located within the South Archibald Trichloroethylene (TCE) Plume. The 2,000-acre TCE Plume contains contaminated groundwater that underlies the Project site.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to the pastures for irrigation.
- General debris observed throughout the property, including vehicle equipment staging areas, used tires, concrete rubble piles, compressors, and generators may have the potential to impact on-site surficial soil.

- The majority of on-site structures were constructed prior to 1988, when the United States passed the Lead Contamination Control Act. As such, asbestos containing materials (ACMs) and lead-based paint (LBP), both of which were widely used in the past but are now known to pose human health risks, may be present.
- Septic systems are located within the property.

To address the possible soil contamination and presence of methane identified by the Phase I ESA for the Borba property, a subsurface and methane investigation was conducted (*Limited Phase II Subsurface Investigation and Limited Methane Investigation Report, Borba Land Phase II (189 acres) 14545 South Grove Avenue, Ontario, California 91762* [Partner Engineering and Science, Inc.] June 26, 2017). No evidence of contamination was detected at the maintenance or refueling area. One gasoline-related VOC was detected at the scrap metal area at a concentration well below applicable criteria. Methane was detected at a concentration of 16,100 parts per million per volume (ppmV) at one sample taken from the site. Methane is not toxic; however, it is combustible and potentially explosive at concentrations higher than 53,000 ppm in the presence of oxygen. A subsurface methane concentration of approximately 5,000 ppm is generally accepted as an “action level.”

The concerns identified above, and their potential to affect the Project, are discussed further at Section 4.6.6.2, *Impact Statements*.

Liberty Property

The Phase I ESA prepared for this portion of the Project site (*Phase I Environmental Site Assessment, GH Dairy Farm, 8643 Eucalyptus Avenue, Ontario, San Bernardino County, California* [AECOM] April 13, 2017) identified the following concerns:

- Animal waste from the long-term dairy farm uses on-site have potentially created methane gas, and soil contamination from nitrates and ammonia.

- Pesticides, herbicides, and arsenic could be present in on-site soils due to the property's previous agricultural use.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. Pesticides are applied to prevent parasite infestations. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Wastewater from these processes is discharged to the pastures for irrigation.
- The property is located within the South Archibald TCE Plume.
- Drains, pits, various buckets, cans, and drums, compressors, and ASTs were observed throughout the property. This general debris may have the potential to impact on-site surficial soil.
- ACMs and LBP may be present within the on-site structures.
- Water supply wells are known to exist at the property.
- Septic systems are located within the property.

To address the possible soil contamination identified by the Phase I ESA for the Liberty property, soil sampling was conducted (*Limited Phase II Environmental Site Assessment, GH Dairy, 8643 Eucalyptus Avenue, Ontario, San Bernardino County, CA [AECOM] June 12, 2017*). Although pesticides and herbicides were detected as part of the soil analysis, the samples tested were below their respective California Human Health Screening Levels Residential Scenario Soil Screening Number. Arsenic was detected at concentrations above the California Human Health Screening Levels Residential Scenario and Commercial/Industrial Scenario. However, the Phase II determined that the concentrations of arsenic observed in the collected soil samples lie within the range of naturally occurring background arsenic concentrations in southern California. These concentrations do not warrant further investigation, and no construction-related special handling is required.

The concerns identified above, and their potential to affect the Project, are discussed further at Section 4.6.6.2, *Impact Statements*.

Minaberry Property

The Phase I ESA prepared for this portion of the Project site (*Phase I Environmental Site Assessment Report, Minaberry Land, 8731 Eucalyptus Avenue, Ontario, California 91762* [Partner Engineering and Science, Inc.] February 28, 2017) identified the following concerns:

- The long-term dairy farm uses on-site have created the potential for methane, nitrates, and ammonia in the soil from animal waste.
- Pesticides, herbicides, and arsenic could be present in on-site soils due to the property's previous agricultural use.
- The property is located within the South Archibald TCE Plume.
- An approximately 500-gallon AST used to store diesel for farm equipment refueling is located on-site.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. Pesticides are applied to prevent parasite infestations. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Wastewater from these processes is discharged to the pastures for irrigation.
- ACMs and LBP may be present within the on-site structures.
- Abandoned vehicles, silos, empty ASTs, tires, and farm equipment no longer in use were observed throughout the property. This general debris may have the potential to impact on-site surficial soil.
- Water supply wells are known to exist at the property.

- Septic systems are located within the property.

Based on the methane concerns identified as part of the Phase I ESA for the Minaberry property, a Methane Investigation was conducted (*Limited Methane Investigation Report, 8731 Eucalyptus Avenue, Ontario, California 91762* [Partner Engineering and Science, Inc.] May 31, 2017). Of the 18 samples collected, four detected methane (at concentrations of 4,000 ppmV, 45,000 ppmV, 15,000 ppmV, and 10,000 ppmV).

The concerns identified above, and their potential to affect the Project, are discussed further at Section 4.6.6.2, *Impact Statements*.

Lanting Property

The Phase I ESA prepared for this portion of the Project site (*Phase I Environmental Site Assessment Report, Lanting Land, 9032 Merrill Avenue and 8911 Eucalyptus Avenue, Ontario, California 91762* [Partner Engineering and Science, Inc.] August 24, 2018) identified the following concerns:

- The long-term dairy farm uses on-site have created the potential for methane, nitrates, and ammonia in the soil from animal waste.
- Pesticides, herbicides, and arsenic could be present in on-site soils due to the property's previous agricultural use.
- The property is located within the South Archibald TCE Plume.
- Various hazardous substances are used on-site in connection with the trucking operation. These substances are typical of service and fueling operations, and include diesel, diesel exhaust fluid, motor oil, antifreeze, transmission fluid, gear oil, a non-VOC-based parts washing solution, paints, and aerosols. Wastes generated on-site include waste oil, waste antifreeze, and used oil filters.

- A portion of the site was previously occupied by a construction company. The exact types of operations and substances associated with the construction company are unclear.
- A total of 0.175 tons of “contaminated soils from site clean-up” were reported as waste generation by the DTSC in 2009. No other regulatory records were found. Due to the limited quantity involved, and the fact that no follow up records exist, it can be assumed that the cleanup was related to a minor spill that was abated without regulatory oversight and the waste was categorized as hazardous and transferred off-site for disposal.
- ACMs and LBP may be present within the on-site structures.
- Water supply wells are known to exist at the property.
- Septic systems are located within the property.

Based on the recommendations of the Phase I ESA, further testing was conducted at this property as part of the Phase II Subsurface and Methane Investigation Report (*Limited Phase II Subsurface Investigation and Limited Methane Investigation Report, Lanting Land, 9032 Merrill Avenue, Ontario, California 91762* [Partner Engineering and Science, Inc.] August 31, 2018).

Methane was not detected above State and local regulatory screening levels on the Lanting property. Additionally, no evidence of a significant release was detected in the truck maintenance area. Although VOCs were detected, the concentrations are well below applicable regulatory criteria.

The concerns identified above, and their potential to affect the Project, are discussed further at Section 4.6.6.2, *Impact Statements*.

Alewyn Property

The Phase I ESA prepared for this portion of the Project site (*Phase I Environmental Site Assessment Report, Alewyn Land, 9031 Eucalyptus Avenue, Ontario, California 91762* [Partner Engineering and Science, Inc.] August 2, 2018) identified the following concerns:

- The long-term dairy farm uses on-site have created the potential for methane, nitrates, and ammonia in the soil from animal waste.
- Pesticides, herbicides, and arsenic could be present in on-site soils due to the property's previous agricultural use.
- The property is located within the South Archibald TCE Plume.
- Formaldehyde, iodine, and glycerol are used to wash the cows associated with the dairy operation. Pesticides are applied to prevent parasite infestations. Additionally, muriatic acid and chlorinated alkaline cleaning solution is used for cleaning. Wastewater from these processes is discharged to the pastures for irrigation.
- ACMs and LBP may be present within the on-site structures.
- Water supply wells are known to exist at the property.
- Septic systems are located within the property.

Based on the methane concerns identified as part of the Phase I ESA for the Alewyn property, a Methane Investigation was conducted (*Limited Methane Investigation Report, Alewyn Land, 9031 Eucalyptus Avenue, Ontario, California 91762* [Partner Engineering and Science, Inc.] August 31, 2018). Of the nine samples collected, only one detected methane. The concentration detected, 1,200 ppmV, is below local regulatory screening levels.

The concerns identified above, and their potential to affect the Project, are discussed further at Section 4.6.6.2, *Impact Statements*.

4.6.3.2 Potential Vicinity Hazards

Database Search

An environmental database search was performed as part of the Phase I ESAs, including federal, state, local, and databases, to evaluate whether properties within the vicinity of the site have been reported as having experienced significant events with potentially adverse environmental effects. Various vicinity properties were identified within the database search. Based on the information provided for these properties and/or the type of database on which the properties were listed, it was unlikely that any of these listed sites would result in, or cause, environmental concerns that would affect the Project site. Please refer also to Section 4.2.1, *Regulatory Database Summary*, of the Phase I ESAs.

Chino Airport

The Project site is located adjacent to Chino Airport, a municipal airport owned by San Bernardino County. Chino Airport encompasses approximately 1,150 acres bounded by Euclid Avenue, Merrill Avenue, Walker Avenue and Kimball Avenue. The airfield is classified as a General Utility (GU) airport and is operated by the San Bernardino County Department of Airports. Operation of Chino Airport creates potential hazard/safety impacts affecting nearby land uses.

4.6.4 HAZARDS/HAZARDOUS MATERIALS POLICIES AND REGULATIONS

A number of federal, state, and local laws have been enacted to regulate and manage hazardous materials. Implementation of these laws and the associated management of hazardous materials are regulated independently of the CEQA process, through programs administered by various agencies at the federal, state, and local levels. An overview of regulatory agencies and certain key hazardous materials laws and regulations applicable to the Project, and to which the Project must conform, is provided below.

4.6.4.1 Federal

Several federal agencies regulate hazardous materials. These include the United States Environmental Protection Agency (USEPA), the United States Occupational Safety and Health Administration (OSHA), and the United States Department of Transportation (USDOT). Applicable Federal Regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). In particular, Title 49 of the CFR governs the manufacture of packaging and transport containers; packing and repacking; labeling and the marking of hazardous material transport. Some of the major federal laws and issue areas include the following statutes and implementing regulations:

- Resources Conservation and Recovery Act (RCRA) - hazardous waste management;
- Hazardous and Solid Waste Amendments Act (HSWA) - hazardous waste management;
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - cleanup of contamination;
- Superfund Amendments and Reauthorization Act (SARA) - cleanup of contamination; and
- Emergency Planning and Community Right-to-Know (SARA Title III) - business inventories and emergency response planning.

The USEPA is the primary federal agency responsible for the implementation and enforcement of hazardous materials regulations. In most cases, enforcement of environmental laws and regulations established at the federal level is delegated to state and local environmental regulatory agencies.

In addition, with respect to emergency planning, the Federal Emergency Management Agency (FEMA) is responsible for ensuring the establishment and development of policies and programs for emergency management at the federal, state, and local levels. This includes the development of a national capability to mitigate against, prepare for, respond to, and recover from a full range of emergencies.

Hazardous Waste Handling

The USEPA has authorized the California Department of Toxic Substance Control (DTSC) to enforce hazardous waste laws and regulations in California. Requirements place “cradle-to-grave” responsibility for hazardous waste disposal on the shoulders of hazardous waste generators. Waste generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., a ban on many types of hazardous wastes from landfills).

Hazardous Materials Transport

The USDOT Office of Hazardous Materials Safety has developed regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation, as outlined in Title 49 of the CFR. The U.S. Postal Service has developed additional regulations for the transport of hazardous materials by mail. USDOT regulations specify packaging requirements for different types of materials. USEPA has also promulgated regulations for the transport of hazardous wastes. These more stringent requirements include tracking shipments with manifests to ensure that wastes are delivered to their intended destinations.

4.6.4.2 State

The primary state agencies with jurisdiction over hazardous chemical materials management are the DTSC and the State Water Quality Control Board (SWQCB). Other state agencies involved in hazardous materials management are the Department of Industrial Relations, California OSHA (Cal OSHA) implementation, Office of Emergency Services (OES - California Accidental Release Prevention Implementation), Air Resources Board (ARB), California Department of Transportation (Caltrans), State Office of Environmental Health Hazard Assessment (OEHHA - Proposition 65 implementation) and CalRecycle (formerly the California Integrated Waste Management Board, CIWMB). The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol (CHP) and Caltrans. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

Relevant hazardous materials management laws in California include, but are not limited to, the following statutes and implementation regulations:

- Hazardous Materials Management Act - business plan reporting;
- Hazardous Waste Control Act - hazardous waste management;
- Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) - release of and exposure to carcinogenic chemicals;
- Hazardous Substance Act - cleanup of contamination; and
- Hazardous Materials Storage and Emergency Response.

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) has broad jurisdiction over hazardous materials management in the state. Within CalEPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

Along with the DTSC, the SWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. SWQCB regulations are contained in Title 27 of the California Code of Regulations (CCR). Additional state regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

Department of Toxic Substances Control

The Resource Conservation and Recovery Act (RCRA) of 1976 is the principal federal law that regulates the generation, management, and transportation of hazardous materials and other wastes. The DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA, and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. In

addition, DTSC reviews and monitors legislation to ensure that the position reflects the DTSC's goals. From these laws, DTSC's major program areas develop regulations and consistent program policies and procedures. The regulations spell out what hazardous waste handlers must do to comply with the laws.

California law provides the general framework for regulation of hazardous wastes by the Hazardous Waste Control Law (HWCL) passed in 1972. DTSC is the State's lead agency in implementing the HWCL. The HWCL provides for state regulation of existing hazardous waste facilities, which include "any structure, other appurtenances, and improvements on the land, used for treatment, transfer, storage, resource recovery, disposal, or recycling of hazardous wastes," and requires permits for, and inspections of, facilities involved in generation and/or treatment, storage and disposal of hazardous wastes.

California Accidental Release Prevention Program (CalARP)

The CalARP program (CCR Title 19, Division 2, Chapter 4.6) covers certain businesses that store or handle more than a certain volume of specific regulated substances at their facilities. The list of regulated substances is found in Article 8, Section 2770.5 of the CalARP program regulations. The businesses that use a regulated substance above the noted threshold quantity must implement an accidental release prevention program, and some may be required to complete a Risk Management Plan (RMP). An RMP is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The purpose of an RMP is to decrease the risk of an off-site release of a regulated substance that might harm the surrounding environment and community. An RMP includes the following components: safety information, hazard review, operating procedures, training, maintenance, compliance audits, and incident investigation. The RMP must consider the proximity to sensitive populations located in schools, residential areas, general acute care hospitals, long-term health care facilities, and child day-care facilities, and must also consider external events such as seismic activity.

Hazardous Materials Transportation

In California, the CHP has the primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. Specifically, Section 31303 of the California Vehicle Code requires that when hazardous materials are transported on state or interstate highways, the highway(s) that offer the shortest overall transit time possible shall be used. Transportation of hazardous materials along any city or state roadways is subject to all hazardous materials transportation regulations established by the CHP and Caltrans. Transporters of hazardous materials and waste are responsible for complying with all applicable packaging, labeling, and shipping regulations.

Investigation and Cleanup of Contaminated Sites

The oversight of hazardous materials release sites often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC and SWQCB are the two (2) primary state agencies responsible for issues pertaining to hazardous materials release sites. Air quality issues related to remediation and construction at contaminated sites are also subject to federal and state laws and regulations that are administered at the local level.

Investigation and remediation activities that would involve potential disturbance or release of hazardous materials must comply with applicable federal, state, and local hazardous materials laws and regulations. The DTSC has developed standards for the investigation of sites where hazardous materials contamination has been identified or could exist based on current or past uses. The standards identify approaches to determine if a release of hazardous wastes/substances exists at a site and delineate the general extent of contamination; estimate the potential threat to public health and/or the environment from the release and provide an indicator of relative risk; determine if an expedited response action is required to reduce an existing or potential threat; and complete preliminary project scoping activities to determine data gaps and identify possible remedial action strategies to form the basis for development of a site strategy.

Caltrans Division of Aeronautics

The Caltrans Division of Aeronautics (Division) is, in large part, responsible for administration of the California State Aeronautics Act (SAA), Public Utilities Code (PUC), Section 21001 et seq. The purpose of the SAA “is to protect the public interest in aeronautics and aeronautical progress.”¹ The SAA is the implementing statute requiring the formation of a county Airport Land Use Commission or comparable designated airport regulatory commission. The SAA at Section 21675. (a) (excerpted in pertinent part below) assigns the ALUC or other designated airport regulatory commission with the responsibility to prepare and adopt an Airport Land Use Compatibility Plan (ALUCP):

21675. (a) Each commission shall formulate an airport land use compatibility plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission’s airport land use compatibility plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. In formulating an airport land use compatibility plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the airport influence area. The airport land use compatibility plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

¹ *California Airport Land Use Planning Handbook* (Caltrans Division of Aeronautics) October 2011, p. vii.

4.6.4.3 Regional

Southern California Association of Governments (SCAG)

SCAG is the regional agency for coordination between various local agencies within the six-county region covering Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial counties. The region covers more than 38,000 square miles and is home to more than 18 million people. SCAG is the designated Regional Transportation Planning Agency, and is responsible for preparing plans and developing goals, policies, and programs to ensure regional cooperation. One such program is the Southern California Compass Blueprint Growth Vision. SCAG works with local governments and other entities in the region to implement the program's four (4) principles: Mobility, Livability, Prosperity, and Sustainability. SCAG is also responsible for preparing the Regional Comprehensive Plan and Guide (RCPG), an advisory plan to achieve a sustainable balance between environmental, economic, and social interests throughout the SCAG region.

South Coast Air Quality Management District (SCAQMD)

The SCAQMD establishes Rules that regulate or control various air pollutant emissions and emissions sources within the South Coast Air Basin (Basin). The SCAQMD coordinates its actions with local, state, and federal government agencies, the business community, and private citizens to achieve and maintain healthy air quality for San Bernardino County, including the City of Ontario.

4.6.4.4 Local

San Bernardino County Fire Department, Hazardous Materials Division

Under the California Unified Hazardous Waste and Hazardous Material Management Regulatory Program, (Chapter 6.11, Division 20, Section 25404 of the Health and Safety Code), hazards/hazardous materials management is addressed locally through the Certified Unified Program Agency (CUPA). The primary CUPA for the City of Ontario is the San Bernardino County Fire Department.

As a CUPA, San Bernardino County Fire Department manages the following six hazardous material and hazardous waste programs:

- Hazardous Materials Release Response Plans and Inventory (Business Plan);
- California Accidental Release Program (CalARP);
- Underground Storage Tanks (UST);
- Aboveground Petroleum Storage Act (APSA)/Spill Prevention, Control, and Countermeasure Plan (SPCC Plan);
- Hazardous Waste Generation and On-site Treatment; and
- Hazardous Materials Management Plans and Inventory Statements under Uniform Fire Code Article 80.

Chino Basin Watermaster

In compliance with the Chino Basin Watermaster's Well Procedure for Developers, a well use/destruction plan and schedule for all existing private/agricultural wells is required to be submitted to the City of Ontario for approval prior to the issuance of permits for any construction activity. The location of the existing private/agricultural wells within the Project site is illustrated at Figure 4.6-2. If a private well is actively used for water supply, the Developer is required to submit a plan to abandon such well and connect users to the City's water system when available. Wells are required to be destroyed/abandoned per the California Water Resource Guidelines and require permitting from the San Bernardino County Health Department. A copy of such permit and Form DWR 188 Well Completion Form is required to be provided to the City of Ontario's Development Engineering Department and the Utilities Engineering Department prior to issuance of grading and/or building permits. If the Developer proposes temporary use of an existing agricultural well for purposes other than agriculture, such as grading, dust control, etc., the Developer is required to make a formal request to the City of Ontario for such use prior to issuance of permits for any construction activity.

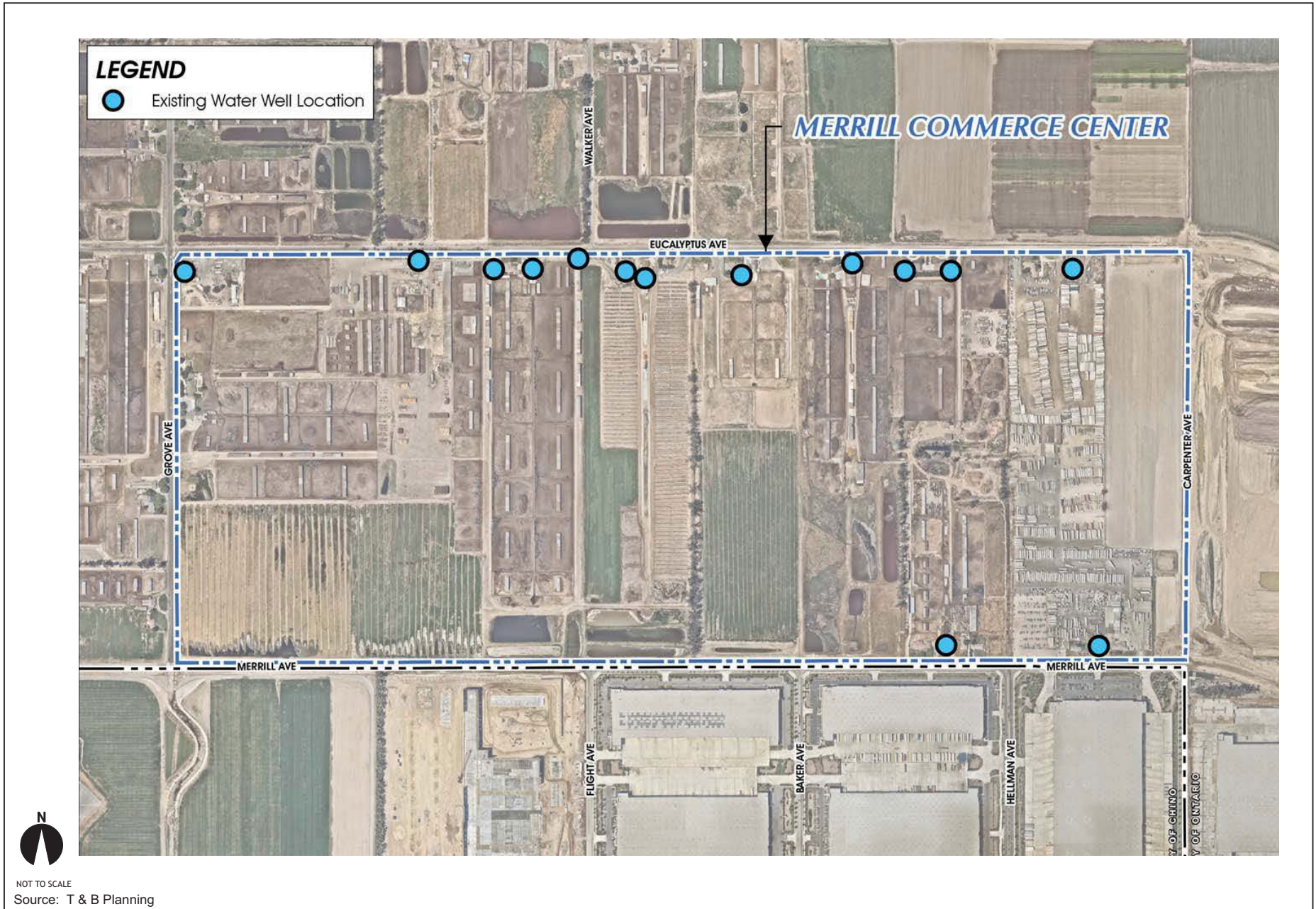


Figure 4.6-2
Existing Well Locations

City of Ontario

The Ontario Plan includes Goals and Policies which act to reduce potential hazards within the City. Additionally, the City of Ontario has published Methane Design Guidelines for projects located within the New Model Colony. These guidelines are applicable to any building development on farm properties (including dairy farms) and is independent of the planned building use (i.e., residential or commercial/industrial).

In summary, a Methane Site Assessment is required for any parcels used as animal farms or composting/fertilizer farms, and the survey must be completed within “all lots in potential methane areas.” The Methane Site Assessment must be completed within 30 days after building footprints have been put in place.

The City further presents Design Guidelines to be implemented within affected properties. Building permits will be issued when the test report is approved by the City Building Department, and any required mitigation measures are shown on building plans.

Chino Airport Overlay

The City of Ontario is currently developing a Compatibility Plan for Chino Airport (Compatibility Plan) that relies on procedures and requirements outlined in California Airport Land Use Planning Handbook (State of California Department of Transportation, Division of Aeronautics) October 2011 (Handbook). As provided for in the Handbook “alternative process” the City functions as the Designated Agency in formulating airport land use compatibility plans for City properties. The Compatibility Plan is based on the Handbook Generic Safety Zones for General Aviation Airports.

See also: <https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf>.

The City anticipates adoption of a Draft Chino Airport Compatibility Plan in late 2020 – early 2021. Final site plans and development plans within the Project site would be

subject to, and would be required to comply with, applicable standards and requirements of the Compatibility Plan as adopted by the City.

4.6.4.5 Waste Handling Procedures

As presented above, the identification, characterization, handling, transportation and disposal of wastes are primarily regulated under 40 CFR, part 261.24 (Federal) and Title 22 of the California Code of Regulations (State) and other applicable DOT, CA DTSC, and OSHA laws and regulations. The following discussions detail how these regulations are applied to the specific hazardous materials most likely to be encountered as part of the demolition and site preparation phase of the Project.

Manifesting and Transportation

Waste must be hauled under proper shipping manifests as follows:

- 1) Non-hazardous: A uniform non-hazardous manifest;
- 2) Cal-haz/Non-RCRA (State system): A uniform hazardous manifest, identifying the waste as non-RCRA, using an appropriate EPA number;
- 3) RCRA-hazardous (Federal system): A uniform hazardous manifest, identifying the waste as RCRA, using an appropriate EPA number.

The transporter must have the required and appropriate hauling permits and licenses in order to be able to haul the waste.

Disposal

Landfills are classified based on the type of waste accepted; hazardous waste must be disposed of at a Class I landfill, “designated waste”² at a Class II, non-hazardous solid waste at a Class III, and inert waste is disposed of at an unclassified disposal site. All

² “Designated waste” is defined as hazardous waste that has been granted a variance from hazardous waste management requirements; or non-hazardous waste that could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of waters of the State.

designated landfills must have the proper local, State and Federal operating permits. Waste, as classified, is disposed of as follows:

- 1) Non-hazardous: At a non-hazardous Class III landfill or at a Treatment and Recycling facility.
- 2) Cal-haz/Non-RCRA: At a hazardous Class I landfill or at an out of State non-hazardous landfill.
- 3) RCRA-hazardous: At a hazardous Class I landfill.

While non-hazardous waste from the Project site could be transported to a number of Class III landfills, non-hazardous waste generated at the site and vicinity is currently sent to the West Valley Materials Recovery Facility (MRF) in Fontana for processing, recycling, or landfilling. Most refuse is transported from the MRF to the El Sobrante Landfill, located in the City of Corona. Any hazardous waste encountered as part of site preparation activities will be disposed of at a Class I landfill. There are currently three (3) Class I landfills located in California. These sites are located in Imperial, Kings, and Kern Counties. The precise location will be determined by the contractor in charge of demolition and site preparation.

Pesticides

There are State and Federal thresholds dictating the characterization of pesticide contaminated soils. Specifically, the United States Environmental Protection Agency (U.S. EPA) and California EPA monitor a number of pesticides that were once widely used, but are currently banned or heavily regulated in the United States due to concerns regarding their environmental impact and/or human health risks. Risk-based soil screening levels have been calculated and published by the U.S. EPA, as well as the California EPA Office of Environmental Health Hazard Assessment (OEHHA) for guidance purposes. Both agencies have developed screening levels for both residential and industrial/commercial settings, as seen below in Table 4.6-1.

**Table 4.6-1
Pesticide Screening Level Thresholds (µg/kg)**

| Agency | Pesticide | | | |
|------------------------------|-----------|------|------|----------|
| | DDT | DDE | DDD | Dieldrin |
| U.S. EPA | | | | |
| <i>Residential</i> | 1700 | 1400 | 2000 | 30 |
| <i>Commercial/Industrial</i> | 7000 | 5100 | 7200 | 100 |
| Cal EPA | | | | |
| <i>Residential</i> | 1600 | 1600 | 2300 | 35 |
| <i>Commercial/Industrial</i> | 6300 | 6300 | 9000 | 130 |

Source: GeoKinetics, August 1, 2013.

Based on testing results, contaminated soils can be treated on-site (by blending/diluting with clean soil) or disposed of off-site, as follows:

- 1) Non-hazardous: The soil must pass the State and Federal regulatory thresholds. In that case, the soil may be disposed of as non-hazardous at a Class III landfill or, as discussed above, a treatment or recycling facility.
- 2) Cal-haz/Non-RCRA: In this case, the soil fails the State regulatory thresholds but passes the Federal requirements. Therefore, the soil may be disposed of as non-RCRA at a Class I hazardous landfill or at an out-of-state non-hazardous landfill.
- 3) RCRA-hazardous: In this case, the soil fails both the State and Federal regulatory thresholds. Therefore, the soil will have to be disposed of as Federal, RCRA-hazardous at a Class I landfill.

Asbestos Containing Materials (ACMs)

Prior to demolition of structures, testing for ACMs is performed by a licensed contractor and any ACMs are disposed of based on the testing results. In California, if asbestos is friable and contains more than 1% asbestos, it is considered hazardous. ACMs are disposed of as follows:

- 1) Non-friable: This ACM waste may be disposed of at a Class III local landfill subject to their acceptance criteria.
- 2) Friable: This ACM waste may be disposed of at a Class I hazardous landfill or at an out-of-state landfill, depending on the level of contamination.

Depending on whether or not the ACMs are friable or non-friable, they will need to be handled, contained, and wrapped accordingly based on the applicable State regulations and the landfill requirements for transportation and disposal purposes.

Lead-Based Paint

Prior to demolition, testing for LBP is performed by a licensed contractor and any LBP is disposed of based on the testing results. LBP waste is disposed of as follows:

- 1) Non-hazardous: If the lead content is less than 50 ppm (presumes it passes the State Soluble Threshold Limit Concentrations (STLC) and the Federal Toxicity Characteristic Leaching Procedure (TCLP) levels of 5.0 mg/l), the waste can be disposed of at a Class III non-hazardous landfill.
- 2) Cal-haz/Non-RCRA: If the waste contains 1,000 ppm lead and it fails the State STLC of 5 mg/l, it is considered cal-hazardous and may be disposed of at an out-of-state landfill as non-RCRA waste.
- 3) RCRA-hazardous: If the waste fails the Federal TCLP of 5 mg/l, it will then have to be disposed of at a hazardous Class I landfill.

4.6.5 STANDARDS OF SIGNIFICANCE

Pursuant to the *CEQA Guidelines* as adopted and implemented by the City of Ontario, and for purposes of this EIR, implementation of the Project may result in or cause potentially significant hazards/hazardous materials impacts if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for the people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.6.6 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.6.6.1 Introduction

The following discussions focus on areas where it has been determined that the Project may result in potentially significant hazards and hazardous materials impacts, pursuant to comments received through the NOP process, and based on the analysis presented within this Section and included within the Initial Study.

As discussed within the Initial Study (EIR Appendix A), the potential for the Project to expose people or structures, either directly or indirectly, to a significant risk of loss,

injury or death involving wildland fires was determined to be less than significant, and is not discussed further within this Section. Please refer also to Initial Study Checklist Item IX. *Hazards and Hazardous Materials*.

4.6.6.2 Impact Statements

Potential Impact: *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.*

Impact Analysis: The following discussions summarize the findings of the technical studies prepared for the site regarding existing on-site hazards, as well as potential hazards associated with operations of facilities proposed under the Project.

Existing On-site Hazards

Existing hazards are the result of past activities within the Project site. The following Table 4.6-2 addresses each of the concerns presented at previous Section 4.6.3.1.

Construction Hazards

In addition to on-site improvements, the Project would also implement off-site infrastructure (roads, potable water, recycled water, sanitary sewer, storm drains, and fiber optic lines) necessary to support the Project. The majority of off-site areas that would be affected by construction of infrastructure improvements comprise already-disturbed/developed rights-of-way and easements.

To date, no known hazardous materials have been encountered within these dedicated rights-of-way. Notwithstanding, Mitigation Measure 4.6.8 was designed to address the unlikely possibility that hazardous materials are encountered during the construction of the proposed off-site improvements.

**Table 4.6-2
Existing Potential Hazards**

| Environmental Concern | Property | | | | |
|--------------------------------------|---|--|---|--|--|
| | Borba | Liberty | Minaberry | Lanting | Alewyn |
| Dairy Uses: Methane | The Phase II Investigation detected an elevated level of methane in the central-eastern area of the property. This is considered a potentially significant impact; please refer to Mitigation Measure 4.6.1. | Although methane was not identified as a concern within the Phase I ESA, the City may require further testing once building pads are created pursuant to the Methane Assessment for Projects in the New Model Colony. | The Phase II Investigation detected elevated levels of methane in the central-eastern area of the property. This is considered a potentially significant impact; please refer to Mitigation Measure 4.6.1. | Methane was not detected at levels exceeding regulatory screening levels at this property. It is noted, however, that the City may require further testing once building pads are created pursuant to the Methane Assessment for Projects in the New Model Colony. | Methane was not detected at levels exceeding regulatory screening levels at this property. It is noted, however, that the City may require further testing once building pads are created pursuant to the Methane Assessment for Projects in the New Model Colony. |
| Dairy Uses: Other Contaminants | The Phase I ESA documents recommended subsurface sampling be conducted and a Soil Management Plan be developed to address any contaminated soils. This is considered a potentially significant impact; please refer to Mitigation Measures 4.6.2 through 4.6.4. | Soil sampling was done as part of the Phase II Investigation for this property. All contaminants detected were at levels below the applicable screening levels, with the exception of arsenic. However, the investigation concluded that arsenic observed in the collected soil samples lies within the range of naturally occurring background arsenic concentrations | The Phase I ESA documents recommended subsurface sampling be conducted and a Soil Management Plan be developed to address any contaminated soils. This is considered a potentially significant impact; please refer to Mitigation Measures 4.6.2 through 4.6.4. | The Phase I ESA documents recommended subsurface sampling be conducted and a Soil Management Plan be developed to address any contaminated soils. This is considered a potentially significant impact; please refer to Mitigation Measures 4.6.2 through 4.6.4. | The Phase I ESA documents recommended subsurface sampling be conducted and a Soil Management Plan be developed to address any contaminated soils. This is considered a potentially significant impact; please refer to Mitigation Measures 4.6.2 through 4.6.4. |

**Table 4.6-2
Existing Potential Hazards**

| Environmental Concern | Property | | | | |
|-----------------------|---|---|--|--|--|
| | Borba | Liberty | Minaberry | Lanting | Alewyn |
| | | in southern California. These concentrations do not warrant further investigation, and no special handling is required. | | | |
| Maintenance Area | The Phase II Investigation found no evidence of contamination in these areas. Impacts in this regard are considered less-than-significant. | n/a | The Phase II Investigation found no evidence of contamination in these areas. Impacts in this regard are considered less-than-significant. | The Phase II Investigation found no evidence of contamination in these areas. Impacts in this regard are considered less-than-significant. | The Phase II Investigation found no evidence of contamination in these areas. Impacts in this regard are considered less-than-significant. |
| Refueling Area | | n/a | n/a | n/a | n/a |
| Scrap Metal Area | Although one gasoline-related VOC was detected at this location, the concentration was well below applicable criteria. Impacts in this regard are considered less-than-significant. | n/a | n/a | n/a | n/a |
| Trucking Operation | n/a | n/a | n/a | Although VOCs were detected, the concentrations are well below applicable regulatory criteria. The | n/a |

**Table 4.6-2
Existing Potential Hazards**

| Environmental Concern | Property | | | | |
|------------------------------------|----------|---------|-----------|--|--------|
| | Borba | Liberty | Minaberry | Lanting | Alewyn |
| | | | | Phase II Investigation found no evidence of significant contaminants associated with this use. Regardless, the Phase II Investigation recommended that a Soil Management Plan be prepared to provide procedures for the proper handling of any contaminated soil encountered during redevelopment activities. Please refer to Mitigation Measures 4.6.2 through 4.6.4. | |
| Previous Construction Company Uses | n/a | n/a | n/a | The Phase I ESA found no evidence that the previous occupation of the property by a construction company would pose a current environmental concern. Impacts in this regard are considered less-than-significant. | n/a |

**Table 4.6-2
Existing Potential Hazards**

| Environmental Concern | Property | | | | |
|------------------------|--|---|---|---|--------|
| | Borba | Liberty | Minaberry | Lanting | Alewyn |
| Pesticides | n/a | The Phase II Investigation concluded that, although pesticides and herbicides were detected, the samples tested were below their respective Screening Levels. These concentrations do not warrant further investigation, and no special handling is required. | Subsurface sampling shall be conducted to investigate pesticides that may be present on-site due to past agricultural uses. This is considered a potentially significant impact; please refer to Mitigation Measures 4.6.2 through 4.6.4. | | |
| TCE Plume | Since the proposed uses would be connected to the municipal water system, this area of contaminated groundwater does not pose a threat to on-site uses. On-site wells will be capped and abandoned as part of the site preparation process. Impacts in this regard are considered less-than-significant. | | | | |
| General Debris | The Phase I ESA determined that areas of general debris on this property were “ <i>de minimis</i> ” in nature. Impacts in this regard are considered less-than-significant. | The Phase I ESA determined that areas of general debris on this property were “ <i>de minimis</i> ” in nature. Impacts in this regard are considered less-than-significant. | The Phase I ESA recommended reassessment of areas containing general debris following their removal from the site. This is considered a potentially significant impact; please refer to Mitigation Measure 4.6.5. | n/a | n/a |
| Previous Soils Cleanup | n/a | n/a | n/a | The Phase I ESA determined that the past cleanup of on-site | n/a |

**Table 4.6-2
Existing Potential Hazards**

| Environmental Concern | Property | | | | |
|-----------------------|--|---------|-----------|---|--------|
| | Borba | Liberty | Minaberry | Lanting | Alewyn |
| | | | | soils does not pose a current environmental concern. Impacts in this regard are considered less-than-significant. | |
| ACMs | All structures will need to be appropriately surveyed and evaluated prior to demolition, and a site-specific determination made as to the potential ACM content of all structures to be demolished. Any identified ACM will need to be removed and disposed of, consistent with regulatory agency requirements. Please refer to Mitigation Measures 4.6.6 and 4.6.7. | | | | |
| LBP | All structures will need to be appropriately surveyed and evaluated prior to demolition, and a site-specific determination made as to the potential LBP content of all structures to be demolished. Any identified LBP will need to be removed and disposed of, consistent with regulatory agency requirements. Please refer to Mitigation Measures 4.6.6 and 4.6.7. | | | | |
| Water Wells | All wells will be abandoned and capped as part of the site preparation process, consistent with applicable regulations of the State of California Department of Water Resources (as reflected in Bulletins 74-81 and 74-90); the San Bernardino County Department of Environmental Health; and the Santa Ana Regional Water Quality Control Board. Impacts in this regard are considered less-than-significant. | | | | |
| Septic Systems | All septic systems will be properly abandoned prior to Project grading and construction, in compliance with the regulations of the Santa Ana Regional Water Quality Control Board; San Bernardino County Department of Environmental Health; the California Uniform Plumbing Code; and Manual of Septic Tank Practice as published by the U.S. Department of Health, Education and Welfare; and the rules, standards and regulations of the City. Impacts in this regard are considered less-than-significant. | | | | |

Operational Hazards

Operation of the Project could involve the temporary storage and handling of potentially hazardous materials such as pesticides, fertilizers, or paint products that are pre-packaged for distribution and use. This type of storage, transfer, use and disposal of potentially hazardous materials is extensively regulated at the local, State and federal levels. It is not anticipated that the development of the Project would result in conditions that are not currently addressed by existing regulations. On this basis, potential operational hazardous materials impacts are considered less-than-significant.

Level of Significance: Potentially Significant (Existing On-site Hazards and Construction Hazards).

Mitigation Measures:

4.6.1 *Soil Management Plan(s) Required. Prior to commencement of site disturbance activities, the Applicant shall retain a qualified professional to prepare a Soil Management Plan. The Soil Management Plan shall address the Specific Plan Area proper as well as areas potentially affected by construction of off-site infrastructure. The Soil Management Plan shall include a Health and Safety Plan (HASP), soil excavation monitoring protocols, and measures to monitor and control vapors and dust. The Applicant shall submit the Soil Management Plan to the California Department of Toxic Substances (DTSC) for review and approval. The City shall not authorize any activity at the Project site that has the potential to disturb soil until DTSC has approved the Soil Management Plan and all necessary permits have been obtained. Should contaminated soils be encountered as part of Project development, the protocols identified within the Soil Management Plan(s) shall be followed in regard to monitoring, handling, disposal, and reporting of management activities to the California Department of Toxic Substance Control, Regional Water Quality Control Board, and/or South Coast Air Quality Management District (including copies of all daily field logs containing SCAQMD Rule 1166 monitoring results), as required. Copies of all submitted reports and responses from responsible agencies shall be provided to the City of Ontario.*

- 4.6.2 *On-Site Environmental Manager Required. The Applicant shall retain a qualified Environmental Manager who shall be on-site during all site disturbance activities. The Environmental Manager shall ensure implementation of the Soil Management Plan required under Mitigation Measure 4.6.1. The Environmental Manager shall also be responsible for monitoring of site disturbance activities to include identification of potentially contaminated media. The Environmental Manager shall have the responsibility and authority to halt on-site activities should any contaminated media or potentially contaminated media be encountered during site disturbing activities. Any contaminated media or potentially contaminated media identified by the Environmental Manager shall be excavated, handled, inventoried, stockpiled, and disposed of in accordance with the approved Soil Management Plan and consistent with all applicable provisions of local, state, and federal laws and regulations.*
- 4.6.3 *Consistent with the City of Ontario requirements, prior to the issuance of building permits, all lots in potential methane areas shall be tested for the presence of methane and its concentration 30 days after building pads are graded and created. Measures set forth by the Ontario Methane Design Guidelines shall be implemented to the satisfaction of the City Building Department.*
- 4.6.4 *Prior to the issuance of grading permits, a subsurface investigation shall be completed to assess the presence or absence of soil contaminants due to the sites past agricultural use, and current dairy farming uses.*
- 4.6.5 *Prior to the issuance of grading permits, the Project Applicant shall demonstrate to the satisfaction of the City that Soil Management Plan(s) have been developed for the site and areas potentially affected by construction of off-site infrastructure. Grading plans shall include a copy of the Soil Management Plan(s).*
- 4.6.6 *Prior to the issuance of grading permits, any existing debris shall be removed. All debris, including soils that evidence surficial staining, shall be disposed of off-site, consistent with the protocols of the Soil Management Plan(s).*

- 4.6.7 *Prior to any relocation, demolition, or destructive renovation activities involving the on-site structures, the Applicant shall submit documentation to the City that ACMs and LBP issues are not applicable to Project. Negative ACM/LBP findings shall be documented in Site/Structure Survey Report (Report) prepared by the Environmental Manager or qualified assignee. The Report shall be submitted to and approved by the City prior to the issuance of applicable relocation, demolition, renovation and/or site disturbing permit(s). If results of the Report indicate presence of ACMs and/or LBP, an action plan shall be implemented in accordance with all appropriate regulatory agency guidelines to abate any issues. Please refer to Mitigation Measure 4.6.8.*
- 4.6.8 *Any confirmed and suspected ACMs or LBP shall be handled and disposed of by licensed contractors in accordance with all appropriate regulatory agency guidelines. Abatement, containment and disposal of any ACMs encountered shall comply with SCAQMD Rule 1403. The removal and disposal of lead-based paint material shall be implemented in accordance with California Code of Regulations, Title 8 Section 1532.1, the Code of Federal Regulations (Title 40, Part 745, and Title 29, Part 1926), the EPA's Lead Renovation, Repair and Painting Program Rules and Residential Lead-Based Paint Disclosure Program, and sections 402/404 and 403, and Title IV of the Toxic Substances Control Act (TSCA).*
- 4.6.9 *For the duration of off-site Project ground-disturbing activities:*
- *Stained or odorous soil encountered during ground-disturbing activities shall be removed, stockpiled, and transported for disposal in accordance with local, state, and federal regulations. Soil samples shall be collected from the resulting excavation(s) to verify complete removal of any impacted soil.*
 - *During soils/debris removal operations, a Project Environmental Professional (Environmental Professional) shall be retained and shall be available to identify and address other issues that may arise in the course Project development. As determined necessary by the Environmental Professional, additional measures shall be employed to minimize effects of any encountered hazards. Documentation of the measures employed*

and resulting conditions after their application shall be documented and submitted to the Lead Agency.

- *Contractors and the Environmental Professional shall maintain ongoing observation and assessment of areas of possible contamination. Such areas would include but not be limited to: the presence of unexpected underground facilities, buried debris, stained soil or odorous soils. Should such materials be encountered, the Environmental Professional in consultation with the Lead Agency shall determine the scope of investigation, analysis, and remediation warranted.*

Level of Significant After Mitigation: Less-Than-Significant. Incorporation of Mitigation Measures 4.6.1 through 4.6.9 requires appropriate remediation of pre-existing hazardous conditions, and ensures that subsequent development within the Specific Plan area would not create or result in potentially significant hazardous conditions. Based on the preceding, the potential for the Project to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment is considered less-than-significant as mitigated.

Potential Impact: *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.*

Impact Analysis: The Project site is not located within one-quarter mile of an existing or proposed school. This concern is therefore not applicable to the Project.

Level of Significance: No Impact.

Potential Impact: *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.*

Impact Analysis: The Project site is listed in several environmental databases. These listings are indicative of the historic and current use of the site for dairy operations, and do not necessarily represent current on-site Recognized Environmental Concerns (RECs). No locations within the site are under investigation for violation by the California Department of Toxic Substance Control (DTSC), U.S. Environmental Protection Agency (U.S. EPA), or any other state or federal agency. Nor is there any information in the hazardous sites search to suggest any current spills, releases, or violations. On this basis, none of the aforementioned agency-listed hazardous materials sites are considered to pose an immediate threat to human or environmental health. Further, the Project site is subject to mandated remediation of current environmental concerns accomplished pursuant to the Mitigation Measures presented herein, and would therefore not cause or result in conditions that would create a significant hazard to the public or the environment. Please refer to Section 4.2, *Mapped Database Records Search*, of the Project Phase I ESAs for greater detail regarding current environmental database listings for the Project site.

On this basis, the potential for the Project to create a significant hazard to the public or the environment predicated on identification of the Project site on a list compiled pursuant to [California Government Code] Section 65962.5 is considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for the people residing or working in the project area.*

Impact Analysis: For planning and environmental review purposes, the City of Ontario has implemented a Compatibility Plan for Chino Airport (Compatibility Plan) that relies on procedures and requirements outlined in *California Airport Land Use Planning Handbook* (State of California Department of Transportation, Division of Aeronautics) October 2011 (*Handbook*). As provided for in the *Handbook* “alternative process” the City

functions as the Designated Agency in formulating airport land use compatibility plans for City properties. The Compatibility Plan is based on the Handbook *Generic Safety Zones for General Aviation Airports*.

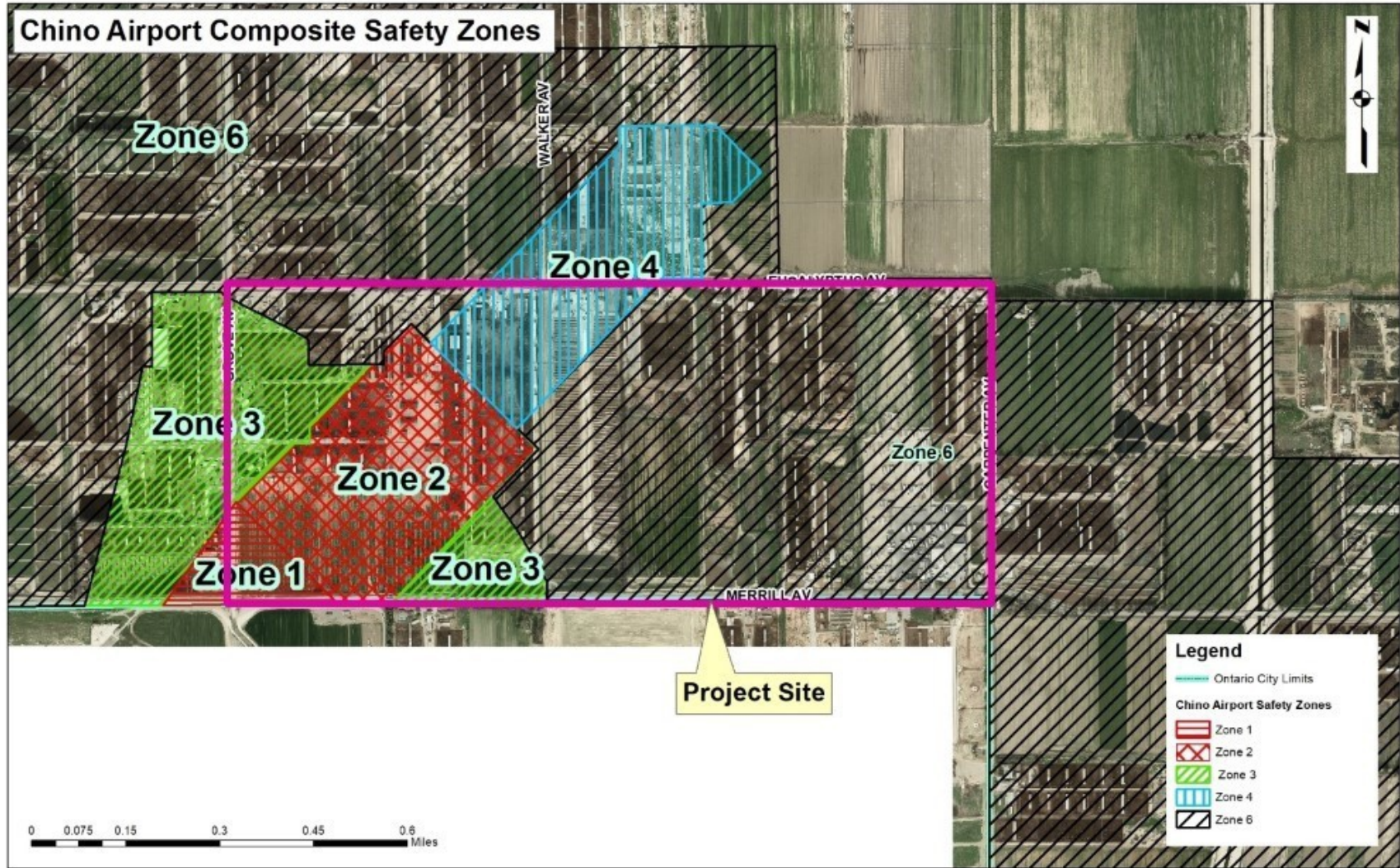
See also: <https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf>).

Compatibility Plan Safety Zones

Location of the Project site within the Compatibility Plan Generic Safety Zones is presented at Figure 4.6-3.

As indicated at Figure 4.6-3, the Project site is located within Safety Zones 1, 2, 3, 4, and 6. Standards and requirements for land uses and development proposals within these Zones as outlined in the Compatibility Plan are summarized below:

- Zone 1 - Runway Protection Zone – No Build Zone (Sitewide Average – 0 People, Single Acre – 0 People);
- Zone 2 - Inner approach/departure zone: At least 25% of the zone should remain as open land (Sitewide Average – 60 People, Single Acre – 120 People);
- Zone 3 - Inner Turning Zone: Maintain approximately 15% open land within the overall zone (Sitewide Average – 100 People, Single Acre – 300 People);
- Zone 4 - Outer approach/departure zone: Maintain approximately 15% open land within the overall zone (Sitewide Average – 150 People, Single Acre – 450 People);
- Zone 6 - Traffic pattern zone: Approximately 10% of usable open land or an open area approximately every 1/4 to 1/2 mile should be provided (Sitewide Average – 300 People, Single Acre – 1200 People).



NOT TO SCALE
Source: Caltrans Division of Aeronautics

Figure 4.6-3
Chino Airport Safety Zones

The Compatibility Plan also:

- Establishes criteria and guidance for establishment of open lands providing for emergency land sites;
- Incorporates Federal Aviation Administration Runway Protection Zone (RPZ) requirements; and
- Establishes Criteria Addressing Hazardous Wildlife Attractants Near Airports.

The City anticipates adoption of a Draft Chino Airport Compatibility Plan in late 2020 – early 2021. All Project Final Plans (e.g., site plans, building plans, landscape plans, utility plans, roadway plans) would be subject to, and would be required to comply with, applicable standards and requirements of the Compatibility Plan as adopted by the City. Mitigation Measure 4.6.10 is included to ensure compliance with, and monitored implementation of, applicable Compatibility Plan provisions.

Level of Significance: Potentially Significant.

4.6.10 Prior to Final Project Plan approvals (including but not limited to: Site Plans, Building Plans, Landscape Plans, Utility Plans, and Roadway Plans), the Project Applicant shall document compliance with applicable provisions of the City of Ontario Chino Airport Compatibility Plan and correlating provisions of the Merrill Commerce Center Specific Plan. Overflight Deed Notices shall be provided for any properties identified in the Compatibility Plan as subject routine aircraft overflight(s).

Level of Significance After Mitigation: Less-Than-Significant. With the incorporation of Mitigation Measure 4.6.10, the potential for the Project to result in an airport-related safety hazard for the people residing or working in the Project area is considered less-than-significant.

Potential Impact: *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.*

Impact Analysis: Access to the Specific Plan area would be provided via surrounding roadways, including Merrill Avenue, Grove Avenue, Vineyard Avenue, and Eucalyptus Avenue. The Project would also implement off-site infrastructure (roads, potable water, recycled water, sanitary sewer, storm drains, and fiber optic lines) necessary to support the Project. The majority of off-site areas that would be affected by construction of infrastructure improvements comprise already-disturbed/developed rights-of-way and easements. The Project would not cause permanent alteration to vehicle circulation routes.

To avoid or minimize temporary construction-related traffic impacts, the Project Applicant would be required to prepare and implement a City-approved construction traffic management plan. Additionally, in accordance with existing City policies, coordination with the local fire and police departments during pre-construction review of the Project's plans will ensure that potential interference with emergency response and evacuation efforts are avoided.

Based on the preceding discussion, the potential for the Project to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan is considered less-than-significant.

Level of Significance: Less-Than-Significant.

4.7 HYDROLOGY/WATER QUALITY

4.7 HYDROLOGY/WATER QUALITY

Abstract

This Section addresses potential impacts of the Project related to hydrology and water quality. The analysis presented focuses on the potential for the Project to:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;*
- Substantially alter the existing drainage pattern of the site or area in a manner that would substantially increase the rate or amount of runoff that would result in flooding on- or offsite;*
- Substantially alter the existing drainage pattern of the site or area in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;*
- Substantially alter the existing drainage pattern of the site or area in a manner which would impede or redirect flood flows;*
- Under a flood, tsunami, or seiche event, release pollutants due to project inundation; or*
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

Additionally, as discussed in the EIR Initial Study (EIR Appendix A), the Project's potential impacts under the following topics were previously determined to be less-than-significant, and are not further substantively discussed here:

- *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.¹*
- *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.²*

As supported by the analysis in this Section, potential hydrology/water quality impacts would be less-than-significant.

4.7.1 INTRODUCTION

This Section evaluates potential impacts of the Project on hydrology and water quality. Information contained and referenced in this Section was obtained from: *Technical Memorandum Borba II Project [Merrill Commerce Center Specific Plan Project] Hydrology & Hydraulic Assessment* (JLC Engineering & Consulting, Inc.) September 19, 2019 (Project Hydrology Report); *Preliminary Water Quality Management Plan (PWQMP) for Merrill Commerce Center Specific Plan Project* (JLC Engineering & Consulting, Inc.) September 17, 2019 (Project WQMP). The Project Hydrology Report and WQMP are provided at EIR Appendix H. Additional background information and context are provided by *Merrill Commerce Center Specific Plan* (T & B Planning, Inc.) September 29, 2020; *The Ontario Plan, Draft Environmental Impact Report* (The Planning Center) April 2009; *Initial Study and Mitigated Negative Declaration, City of Ontario Infrastructure Master Plans* (City of Ontario) July 2012; and the City of Ontario Policy Plan.

¹ Please refer also to related discussions addressing existing groundwater wells within the Project site presented at EIR Section 4.6, *Hazards/Hazardous Materials*, and discussions on Project water demands and available water supplies presented at EIR Section 4.12, *Utilities and Services Systems*.

² Please refer also to related discussions presented at EIR Section 4.9, *Geology and Soils*.

4.7.2 EXISTING CONDITIONS

Please refer to EIR Section 3.0, *Project Description*, for a general discussion of the Project's regional and vicinity setting. The hydrologic setting described below establishes the baseline against which the Project's potential hydrology/water quality impacts were evaluated. The Ontario Plan Draft Environmental Impact Report (Section 5.9) describes area hydrologic and water quality characteristics, as summarized and paraphrased in the following discussions.

4.7.2.1 Regional

Drainage

The Santa Ana River Watershed encompasses approximately 2,800 square miles, and includes portions of San Bernardino, Orange, and Riverside Counties. The Santa Ana River is the main surface drainage course in the region, and the largest river in the Chino Basin. The river originates in the San Bernardino Mountains, travels southwest, and ends at the Pacific Ocean near the Huntington Beach/Newport Beach city boundary. Water flow in the river is regulated by the Prado Dam, the Seven Oaks Dam, and other flood-control facilities along the river and its tributaries. The City of Ontario is nearest to Reach 3 of the Santa Ana River.

Surface Water

The City of Ontario lies within the Chino Watershed, which consists of most of the Upper Santa Ana River Valley and portions of the San Gabriel Mountains and Puente and Chino Hills. The Santa Ana River forms the southern boundary of the Watershed. The primary direction of drainage flow is from the San Gabriel Mountains southward to the Santa Ana River, then southwest in the river.

Within the City, streams in the watershed include the West Cucamonga, Deer Creek, Day Creek, and Etiwanda Creek Channels, and the Cucamonga Creek Flood Control Channel. West Cucamonga Channel and Deer Creek Channel discharge into the Cucamonga Creek Flood Control Channel, which discharges into the Santa Ana River. Within the City, some

stormwater runoff is diverted for recharge in flood retention and spreading basins, including the Eighth Street, Ely, Turner, Chris, Cucamonga, and Wineville Basins.

The USEPA denotes four surface water bodies within the Chino Watershed on its list of Water Quality Limited Segments under Section 303(d) of the Clean Water Act (USEPA 2007). One of these water bodies passes through the City of Ontario—The Valley Reach of Cucamonga Creek is included on the Section 303(d) list for coliform bacteria from an unknown nonpoint source.

Groundwater

The Chino Basin is one of the largest groundwater basins in southern California, covering approximately 235 square miles of the Upper Santa Ana River Valley. The basin is bounded by the Rialto-Colton Fault on the northeast, the Jurupa Mountains and La Sierra Hills to the southeast, the Central Avenue Fault to the southwest, and the San Jose Fault and Red Hill Fault to the northwest. Groundwater is produced from the basin by cities, other water supply entities, and by agricultural users overlying the basin. Before 1978, the basin was in overdraft. Since 1978, the basin has been managed via ongoing court adjudication in the 1978 judgment *Chino Basin Municipal Water District vs. City of Chino et al.*

The City of Ontario draws all of its groundwater supply from the Chino Basin. Groundwater flows through the Chino Basin in a north/south alignment, and groundwater quality is better in the northern portion of the basin, where significant recharge occurs. Salinity, measured as total dissolved solids (TDS), and nitrate concentrations increase in the southern portion of Chino Basin. TDS and nitrate generally originate from nonpoint sources such as land application of wastes and fertilizer from previous and current agricultural activities. In addition, there are several point sources of contamination in the basin that affect groundwater quality in localized areas. The primary water quality concerns for the City's groundwater wells are nitrate and perchlorate levels. Other contaminants of concern are volatile organic compounds (VOC) and TDS.

Flood Hazards

While significant hydrologic improvements have been made within the City, including channelization of many of the City's watercourses, flooding associated with peak 100-year and 500-year floods and dam inundation remains a potential hazard.

Types of Floods

Flash floods are short but have high peak volumes and velocities. The local mountains are very steep and consist of rock types fairly impervious to water. Little precipitation infiltrates the ground. Instead, rainwater flows across the surface as runoff, collecting in major drainages that pass through the City. When a major storm event moves in, water collects rapidly and runs off quickly. Because of the steep terrain and scarcity of vegetation in the mountains, flood flows often carry large amounts of mud, sand, and rock. Sheet flow occurs when the capacity of the existing channels, either natural or man-made, are exceeded and water flows over and into the adjacent areas.

Recent Historical Floods

In the winter of 1969, flood flows were greater than the estimated 100-year flood, and exceeded the capacity of levees, storm drains, and flood-control channels. About 1,000 people were reportedly evacuated from the Cucamonga area. In Ontario, most of the floodwaters were contained in improved channels and basins; however, overbank flow from Deer and Etiwanda Creeks flooded portions of the City.

In 1998, the area received more than double its average annual rainfall, and this, combined with a lack of storm drains in south Ontario, resulted in significant flooding of the dairy preserve. The flooding caused significant property damage, the deaths of about 16,000 dairy cows, with losses to farmers in the millions of dollars. The winter storms of 2004/2005 dropped record rainfall on southern California. Ontario experienced localized flooding and sedimentation, mainly due to inadequacies in the local storm drain system, but the damage was considerably less than the 1998 losses.

Designated Flood Zones

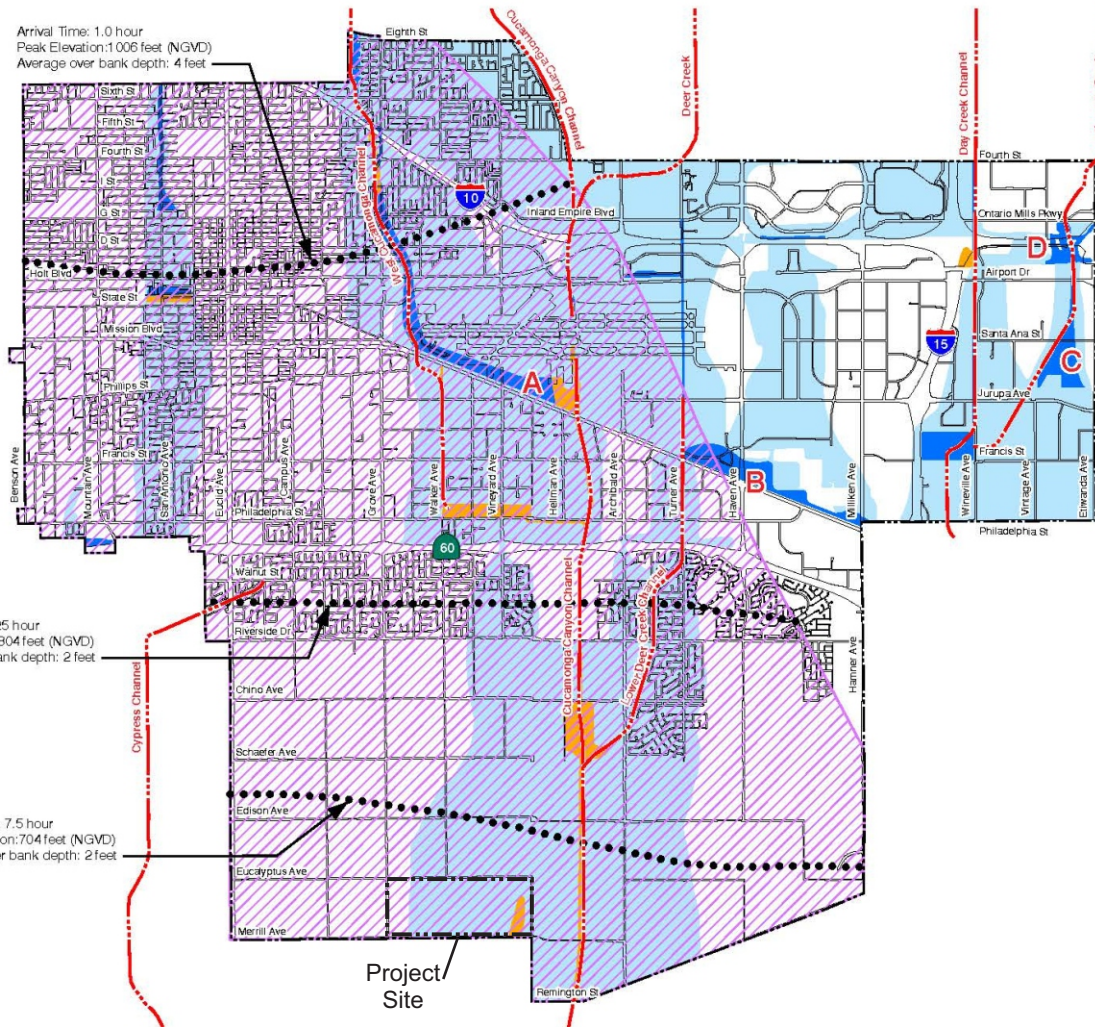
The 100-year flood in Ontario is generally confined to the major watercourses, channels, and basins that traverse the City. Please refer to Figure 4.7-1. The majority of the City watercourses are channelized to prevent flood hazards. However, in the event of a peak 100-year or 500-year storm event, flood waters can flow over their banks and inundate adjacent areas. Large portions of the City would be affected by shallow and/or infrequent flooding, primarily by sheet flow as storm drains and channels become overwhelmed. This flooding is also exacerbated by graded embankments along the rail lines and east/west roadway embankments within the City that cause ponding. The Project site is located outside of the 100-year floodplain, but within the 500-year floodplain.

4.7.2.2 City of Ontario Master Drainage Plan (MDP)

The Project site lies within the “New Model Colony West” (NMC-West) portion of the *Master Plan of Drainage, City of Ontario* (Hunsaker and Associates) March 2012 (MDP). The NMC-West is apportioned into 5 watershed Zones (Zone XI, XII, XIII, XIV, and XV). Location of the Project site within the MDP area is presented at Figure 4.7-2.

The MDP has been planned and designed to accept and convey stormwater discharges that would result from City Buildout conditions, including buildout of the Project site and surrounding areas of Ontario Ranch. Volume II of the City of Ontario MDP includes the hydrology analyses performed for the overall MDP drainage area.

The MDP hydrological assumption for the Project site is 90% impervious surfaces and 10% pervious surfaces. This assumption establishes a conservative likely maximum stormwater discharge condition. The Project would implement business park/warehouse uses that would result in site development consistent with the MDP hydrological assumptions. Stormwater discharges from the Project site would not exceed the MDP hydrological assumptions and would therefore not exceed planned capacity of the serving MDP storm drain system (Project Hydrology Study, p. 2). Please refer also to detailed hydraulic calculations at Project Hydrology Study Appendices A and B.



- 100-Year Floodplain
- 500-Year Floodplain
- Drainage Basins and Channels
- San Antonio Creek Dam Failure Inundation
- Dam Inundation Arrival Times
- Channels



Source: The Ontario Plan Draft EIR

Figure 4.7-1
Flood Hazard Areas

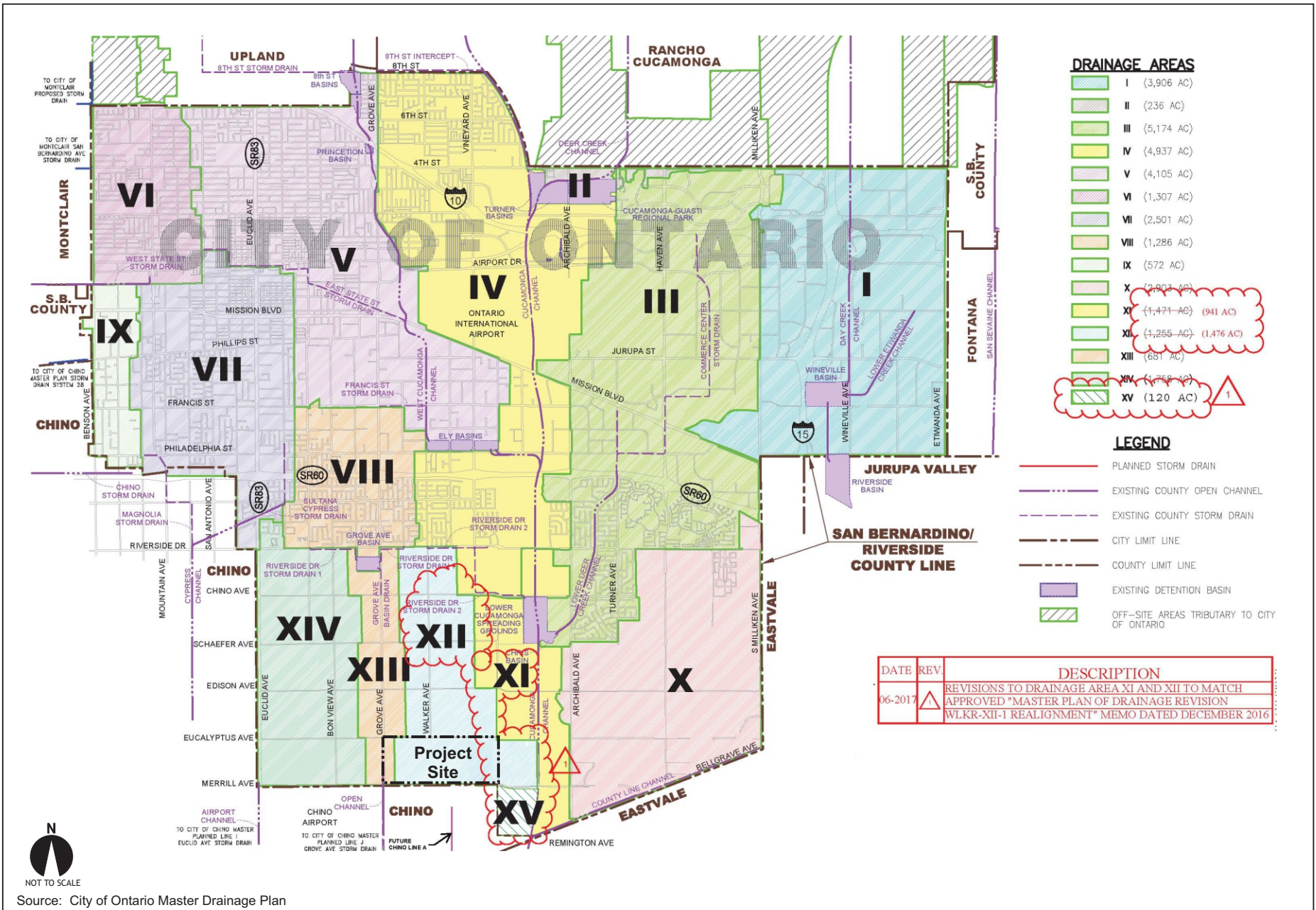


Figure 4.7-2
Project Location within MDP Area

4.7.2.3 Project Site

The Project site currently evidences dairy farm/cattle operations, cattle stockades, cattle and dairy farming support equipment, bio-retention basins associated with dairy farms, and residences appurtenant to dairy farm/cattle operations. The easterly portion of the Project site accommodates trucking operations and is developed with light industrial/commercial buildings and paved truck trailer parking/storage areas. Current uses and operations within the Project site listed below indirectly or directly contribute to potential adverse water quality conditions affecting the Project site and surrounding areas.

- Animal waste from the long-term dairy farm uses have potentially created methane gas, and soil contamination from nitrates and ammonia.
- Numerous automotive fluids, including several large above ground storage tanks (ASTs).
- Additional ASTs used for truck and equipment refueling.
- Scrap metal area containing drums, ASTs, farming equipment, and vehicles.
- The property is located within the South Archibald Trichloroethylene (TCE) Plume. The 2,000-acre TCE Plume contains contaminated groundwater that underlies the Project site.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to pastures for irrigation.
- Holding ponds for contaminated runoff from agricultural/dairy farm operations.

- General debris observed throughout the property, including vehicle equipment staging areas, used tires, concrete rubble piles, compressors, and generators may have the potential to impact on-site surficial soil.
- Presence of private septic systems.
- Presence of private groundwater wells.

Implementation of the Project would remove or otherwise eliminate all of the above, and thereby act to avoid or substantially diminish existing adverse water quality conditions affecting the Project site and surrounding areas.

Except for regional drainage channels, the existing storm drain system serving Ontario Ranch and the Project site is largely unimproved and consists primarily of open earthen swales along roadways or curbed roadway surfaces. Historically, periods of heavy rain have resulted in catastrophic flooding events affecting unsewered dairy farms.³ Existing Project site gradients and drainage patterns trend generally south/southwesterly. Master plan and on-site stormwater management systems implemented by the Project would preclude potentially adverse impacts of Project contributions to the City storm drain system, and would avoid or substantially diminish the potential for flooding that has historically affected surrounding unimproved properties.

4.7.2.4 Project Stormwater Management System Improvements

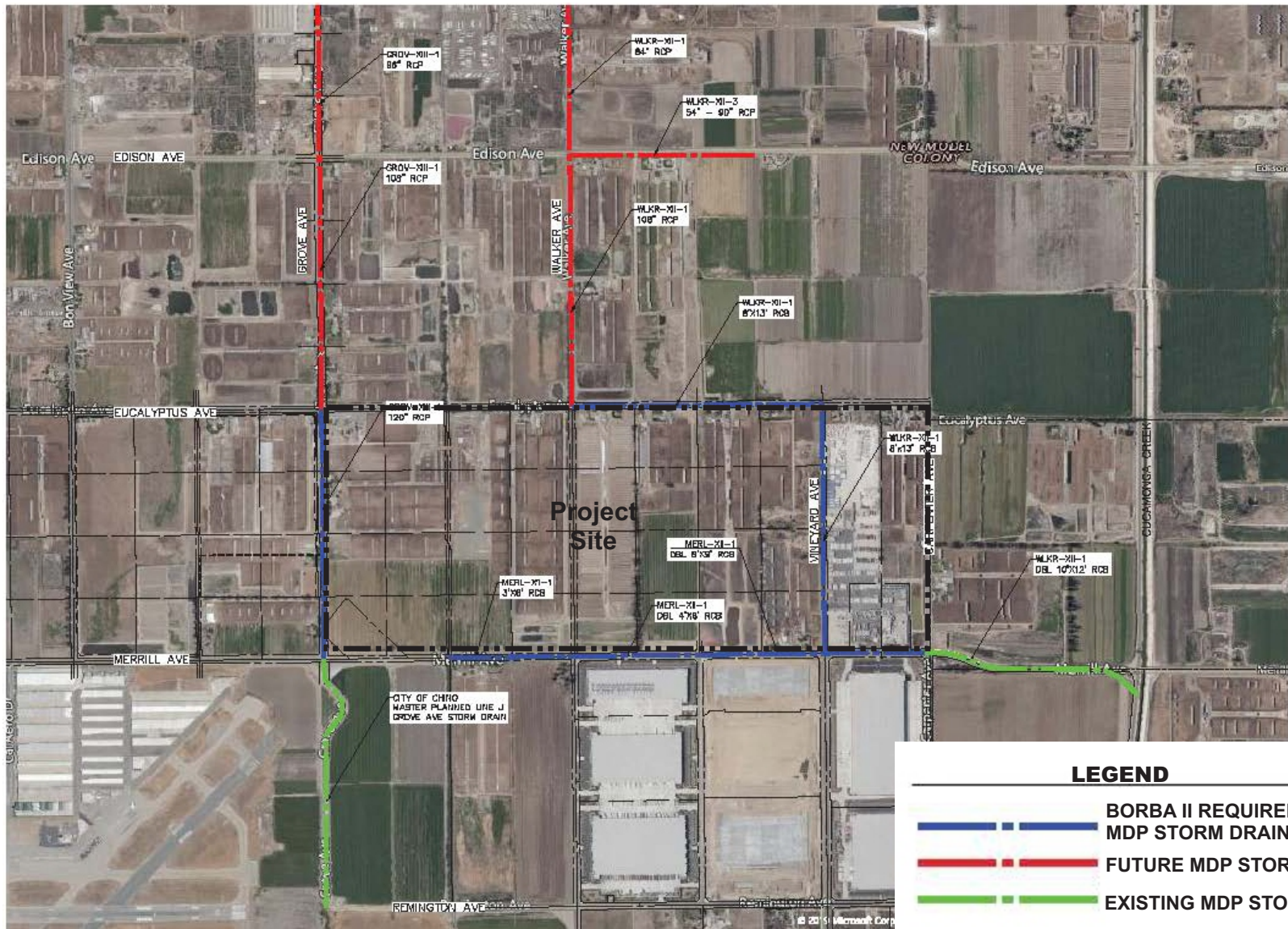
MDP/Regional Stormwater Management System Improvements

MDP/Regional Stormwater Management System Improvements that would be constructed by the Project are presented at Figure 4.7-3. The Storm Water Management Plan Concept responds to and incorporates City of Ontario Master Plan of Drainage standards. Storm drain improvements listed below would be installed to service the Specific Plan area. Line diameter sizes and other storm drain facility sizes noted herein

³ *Initial Study and Mitigated Negative Declaration, City of Ontario Infrastructure Master Plans* (City of Ontario) July 2012, p. 2-3.

may be subject to modification by the City of Ontario and/or the San Bernardino Flood Control District as part of the Project final designs and engineering. Where required by the City, storm drains shall be equipped with a hydrodynamic separator(s) to satisfy the statewide trash mandate. Each device will be approved by and listed on the Certified Full Capture System List of Trash Treatment Control Devices of the State Water Resources Control Board (SWRCB).

- An 8-foot by 13-foot Reinforced Concrete Box (RCB) would be constructed in the segment of Eucalyptus Avenue located between Walker Avenue and Vineyard Avenue;
- A 3-foot by 6-foot RCB, a double 4-foot by 8-foot RCB, a double 8-foot by 9-foot RCB, and a double 12-foot by 10-foot RCB would be constructed in various segments of Merrill Avenue between the midpoint of the southerly boundary of Planning Area 2 and Carpenter Avenue;
- A 24-inch storm drain line would be constructed in the segment of Walker Avenue located between the southerly boundary of Planning Area 1A and Merrill Avenue;
- A 120-inch storm drain line would be constructed in the segment of Grove Avenue located between Eucalyptus Avenue and Merrill Avenue (with a point of connection to the existing open flood channel located south of the intersection of Merrill Avenue and Grove Avenue); and
- An 8-foot by 13-foot RCB would be constructed in the segment of Vineyard Avenue located between Merrill Avenue and Eucalyptus Avenue.
- Additionally, the developer(s) of the Project may be conditioned to improve the existing open flood channel located south of the intersection of Merrill Avenue and Grove Avenue. Improvements may consist of either lowering the elevation of the existing earthen channel or installing a double 10-foot by 6-foot RCB within the existing earthen channel to connect to an existing RCB located at the southerly terminus of the existing earthen flood channel. The ultimate solution will be determined during the final Project design and engineering process.



LEGEND

- BORBA II REQUIRED MDP STORM DRAIN
- FUTURE MDP STORM DRAIN
- EXISTING MDP STORM DRAIN

N
NOT TO SCALE
Source: City of Ontario Master Drainage Plan

Figure 4.7-3
MDP/Regional Stormwater Management System Improvements

On-Site Stormwater Management System Concept

The Project stormwater management system concept is outlined below. Please refer also to Figure 4.7-4, *On-Site Stormwater Management System Concept*.

The Design Capture Volume (DCV) from the Project site uses would be collected and directed on-site via sheet flow and subsurface storm drains. Stormwaters would then discharge to subsurface basins, or to proposed infiltration basin(s). The DCV would then be treated via infiltration either within the subsurface basins or the infiltration basin(s). The subsurface basins and infiltration basin(s) would be designed to preclude discharges below the depth of the DCV.

The on-site storm drain improvements would be designed so all flows would be conveyed to the subsurface basins or infiltration basin(s). Flows in excess of the DCV would be conveyed via outlet pipes from on-site stormwater management BMPs to MDP facilities in adjacent roadways. The on-site stormwater management BMPs have been sized to accommodate the DCV, while allowing bypass of flows exceeding the DCV. Consistent with City and County requirements and programs outlined below, Low Impact Development (LID) design elements and other stormwater management BMPs would be incorporated in the final designs of individual development proposals within the Project site.

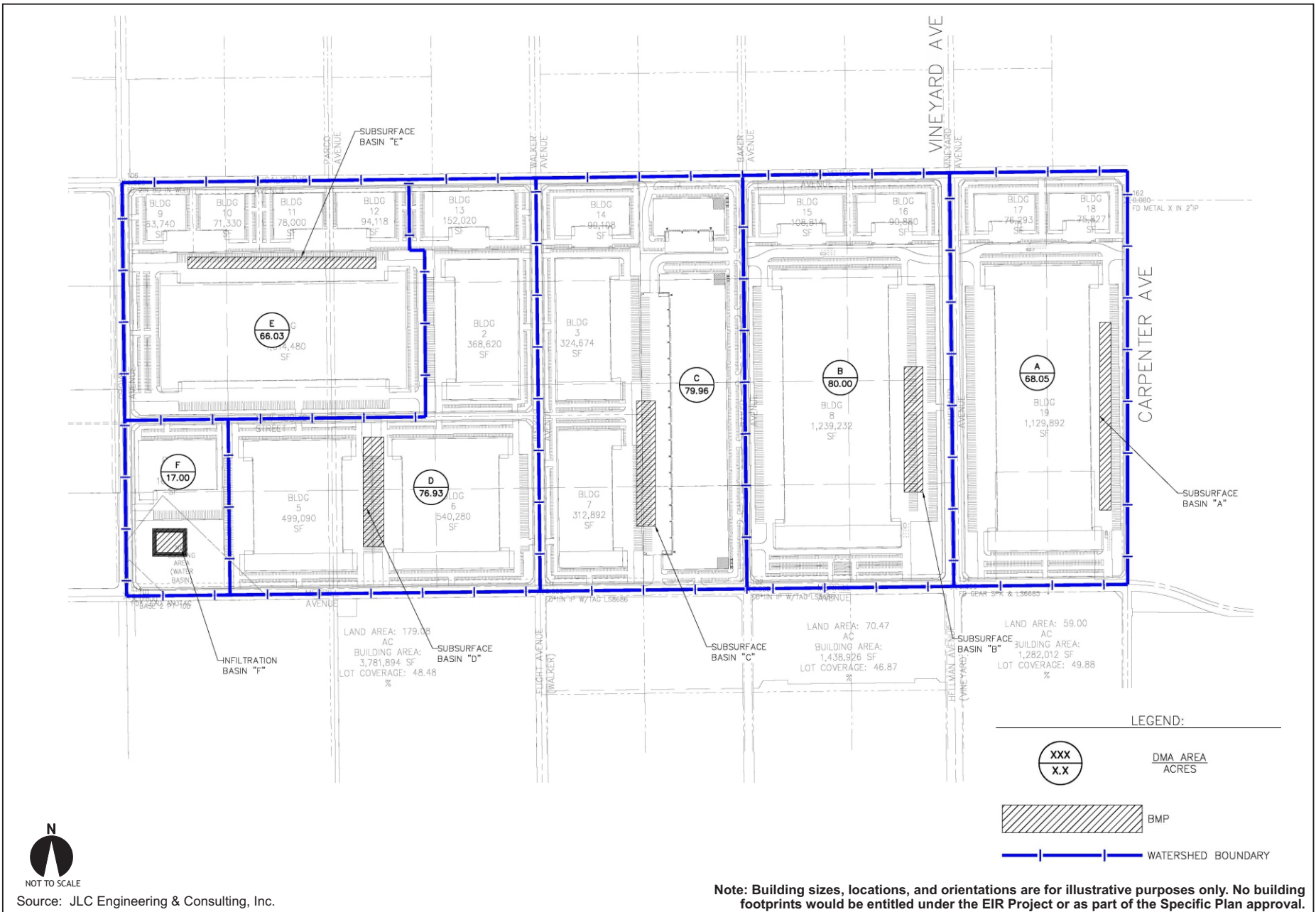


Figure 4.7-4
On-Site Stormwater Management System Concept

San Bernardino County

The County MS4 Permit requires that a preliminary project-specific WQMP be prepared for review early in the project development process and that a Final WQMP be submitted prior to the start of construction. LID design elements and other stormwater management BMPs to be incorporated in the Project include:

- Develop site design measures using Low Impact Development (LID) principles;
- Establish project-specific design capture volume (DCV) and applicable Hydrologic Conditions of Concern (HCOC) requirements;
- Evaluate feasibility of on-site LID Best Management Practices (BMPs);
- Maximum hydrologic source control, infiltration, and biotreatment BMPs;
- Select applicable source control BMPs; and
- Address post-construction BMP maintenance requirements.

The Project preliminary WQMP is provided at EIR Appendix H. Consistent with City and County requirements, Final WQMPs will be prepared subsequent to development proposals within the Project site.

City of Ontario

Additional requirements established by the City of Ontario Standard Conditions of Approval (below) act to avoid or minimize potential water quality impacts. Development proposals within the Project site would be required to comply with the following Conditions:

- Standard Condition (SC) 3.66: A hydrology study and drainage analysis, prepared in accordance with the San Bernardino County Hydrology Manual and the City of Ontario's Standards and Guidelines, and signed by a Civil Engineer registered in the State of California, shall be submitted to the Engineering Department prior to Grading Plan approval. Additional drainage facilities may be required as a result of the findings of the study.

- SC 3.68: Prior to Grading Plan approval and the issuance of a grading permit, an Erosion and Sediment Control Plan shall be submitted to, and approved by, the Engineering Department. The Erosion and Sediment Control Plan shall identify the Best Management Practices (BMPs) that will be implemented by the Project during construction in order to reduce the discharge of sediment and other pollutants into the City's storm drain system.
- SC 3.69: Prior to Grading Plan approval and the issuance of a grading permit, a completed Water Quality Management Plan (WQMP) shall be submitted to, and approved by, the Engineering Department. The WQMP shall be submitted using the San Bernardino County Stormwater Program's model template and shall identify all Post Construction, Site Design, Source Control, and Treatment Control Best Management Practices (BMPs), that will be incorporated into the Project, in order to minimize any potential adverse impacts to receiving waters.⁴

The measures and requirements outlined above would collectively act to avoid or minimize potential water quality impacts. Moreover, these measures and requirements as implemented under the Project would improve stormwater quality discharges when compared to untreated and/or contaminated discharges originating from by the site's various dairy farm and trucking uses, and uncontrolled/untreated discharges originating from the site generally.

4.7.3 HYDROLOGY/WATER QUALITY POLICIES AND REGULATIONS

Applicable federal, state, and local policies and regulations that act to reduce potential hydrologic impacts and/or act to protect and preserve water quality are summarized below.

⁴ City of Ontario. "Standard Conditions of Approval for New Development, Applicable to 'Ontario Ranch'" pp. 13, 14. *City of Ontario, California*. www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Documents/20170418-standard_conditions_for_new_development.pdf. Accessed 13 Nov. 2019.

4.7.3.1 Federal Water Pollution Control Act, Federal Clean Water Act (CWA)

The principal law governing pollution of the nation's surface waters is the Federal Water Pollution Control Act, or Clean Water Act (CWA), which was substantially revised by amendments in 1972 that created the bulk of the current statutory scheme. The CWA requires states to adopt water quality standards. To achieve its objectives, the CWA is based on the concept that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit. The CWA states that discharge of pollutants into waters of the United States from any point source is unlawful unless the discharge complies with the National Pollution Discharge Elimination System (NPDES) permit.

The NPDES is a national program under Section 402 of the CWA. The CWA establishes the framework for regulating municipal and industrial (point sources) storm water discharges under the NPDES program. In California, the NPDES program is administered through the nine Regional Water Quality Control Boards, including the Santa Ana Regional Water Quality Control Board (SARWQCB). Locally, the SARWQCB determines the City of Ontario's compliance with the water quality requirements of the CWA. The Board has adopted a Water Quality Control Plan for the Santa Ana Region (Basin Plan), which is discussed in greater detail subsequently within this Section.

Non-point pollution sources are also regulated by the SARWQCB through the General Construction Activity Storm Water NPDES permits, which are issued for storm water discharges. Construction activities subject to this general permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation that result in soil disturbances. Storm water pollution prevention plans (SWPPPs) are required as part of the construction NPDES permitting process. SWPPPs typically include both structural and non-structural Best Management Practices (BMPs) to reduce water quality impacts.

4.7.3.2 State of California and San Bernardino County

At the federal level, the Clean Water Act allows the Environmental Protection Agency (EPA) to delegate its NPDES system permitting authority to states with an approved regulatory program. The Clean Water Act authorizes discharge of pollutants into waters of the State by issuance of NPDES permits. An NPDES permit has been issued by the

California Regional Water Quality Control Board to San Bernardino County and local agencies. The City of Ontario is one of many cities included as a “co-permittee” in the NPDES permit issued to the County. The regulated entities must obtain coverage under an NPDES storm water permit and implement construction storm water pollution prevention plans (SWPPPs), and operational Water Quality Management Plans (WQMPs), both using best management practices (BMPs) that effectively reduce or prevent the discharge of pollutants into receiving waters.

The NPDES permit imposes various requirements of the discharger. Provided the discharger complies with such requirements, the discharger is considered compliant with the CWA and the Permit. Most requirements imposed by the Permit comprise BMPs, which are construction and operational discharge control practices and mechanisms deemed to comply with the CWA requirements.

Storm Water Pollution Prevention Plan (SWPPP) Required

In September 2009, the State Water Resources Control Board (SWRCB) issued an NPDES General Permit for the discharge of storm water associated with Construction Activities. Federal regulations promulgated by USEPA (40 CFR Parts, 9, 122, 123, and 124) expanded the NPDES storm water program to include storm water discharges from municipal separate storm sewer systems (MS4s) and construction sites that were smaller than those previously included in the program. The SWRCB issued a NPDES General Permit for the discharge of storm water associated with construction activities. The existing state NPDES Permit (Order No. 2009-0009-DWQ, General Permit No. CAS000002, Permit) addresses storm water discharges associated with construction activities. The Permit applies to all of California, which is inclusive of the City of Ontario and the Project site.

Requirements of this Permit include a mandate that all construction projects that disturb one acre or more of land area, shall obtain coverage under the statewide General Construction permit, obtain a Waste Discharger Identification Number (WDID#) and develop and implement a SWPPP. Under NPDES General Permit Section XIV, the SWPPP shall address these objectives: all pollutant sources shall be identified; BMPs shall be implemented to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction; and a

maintenance schedule for BMPs installed during construction shall be implemented. BMPs shall be described for control of discharges from waste handling and disposal areas and methods of on-site storage and disposal of construction materials and construction waste.

An effective combination of erosion and sediment control on all disturbed areas during the rainy season must be implemented. The SWPPP shall describe the erosion control practices. The SWPPP shall describe the BMPs to reduce pollutants in storm water discharges after Project construction. The beneficial uses of the receiving waters are protected through implementation of these BMPs.

Water Quality Management Plan (WQMP) Required

Consistent with provisions of the County's Urban Runoff (NPDES) Permit, the Project is also required to develop and implement a post-construction Water Quality Management Plan (WQMP) addressing potential operational storm water pollutant discharges over the life of the Project.

The WQMP requirements are articulated in the County's Urban Runoff (NPDES) Permit, and include such Low Impact Development (LID) measures as retention/infiltration basins, infiltration trenches/swales, pervious pavement, vegetated swales, drywells, underground storage, biotreatment and biofiltration, roof runoff controls, recessed grading in all landscaped areas, education programs, and maintenance practices. The NPDES permitting program also includes measures to reduce the release of pollutants such as sediment, construction materials, or accidental spillage of polluting materials during construction. Consistent with provisions of the County's NPDES Permit, the City of Ontario requires implementation of development-specific SWPPPs and incorporation of BMPs that reduce storm water and urban runoff pollutant discharges to the waters of Southern California.

SWPPP Components

Typical SWPPP elements include:

- Introduction and Purpose
- Compliance Requirements and Certifications
- Facility Information/Pollution Prevention Team Members
- Site Map
- List of Significant Materials
- Potential Storm Water Pollutants and Sources
- Best Management Practices
- Summary of Pollutants, Sources, and BMPs
- Annual Comprehensive Site Evaluation
- Definitions
- State Notice of Intent Form and Instructions

SWPPP BMPs incorporated in the Project would likely include, but not be limited to:

Construction BMPs

- Silt Fences
- Check Dams
- Gravel Bag Berms and Checkdams in concentrated flow lines
- Street Sweeping and Vacuuming
- Storm Drain Inlet Protection
- Wind Erosion Control
- Stabilized Construction Entrance/Exit
- Entrance/Outlet Tire Wash
- Scheduling construction work around inclement weather
- Preservation of Existing Vegetation (wherever possible)
- Application of Soil Binders and Hydromulches, before forecasted storms
- Construction of Earth Berms and Dikes

Contingent on final designs of proposed uses within the Project site, the range of WQMP incorporated BMPs would likely include, but not be limited to:

Non-Structural BMPs

- Tenant Education
- Activity Restrictions
- Common Area Landscape Management
- Catch Basin Inspection
- Common Area Litter Control
- Private Street/Lot Sweeping
- Housekeeping of Loading Docks
- Employee Training
- BMP Maintenance

Structural BMPs

- Infiltration and Biofiltration Basins, Trenches, Swales
- Pervious Pavement
- Underground retention/infiltration storage facilities
- Control of Impervious Runoff
- Common Area Efficient Irrigation
- Common Area Runoff-Minimizing Landscape
- Wash Water Controls for Food Preparation Areas
- Covered Trash Container Areas
- Self-contained Areas for Washing/Steam Cleaning/Repair/Material Processing
- Outdoor Storage
- Energy Dissipators
- Catch Basin Stenciling
- Inlet Trash Racks

The Project would implement and comply with State of California and San Bernardino County water quality protection policies and mandates.

4.7.3.3 Porter-Cologne Water Quality Act

Section 303 of the federal Clean Water Act and the State Porter-Cologne Water Quality Act establish water quality objectives for ground and surface waters in the State. Protection and maintenance of surface water quality is the combined responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater management agencies, and City and County governments.

The RWQCB has purview over point and non-point sources of pollution. Point source water pollutants consist of controlled wastewater releases commonly generated by activities that use water to collect pollutants and transport them from the processing facility. When such wastewater discharges are proposed, the applicant must obtain a set of Waste Discharge Requirements from the RWQCB that control water pollution to a non-significant level from such point sources.

Non-point sources of water pollution consist of surface runoff from a site or area during or following a storm where the source of pollution cannot be traced to a specific location. Typical non-point water pollution sources consist of agricultural fields with sediment and fertilizers, construction sites with sediment and debris, and roads with oil, tire particles, and debris common to roads.

4.7.3.4 Santa Ana Regional Water Quality Control Board

Water Quality Control Plan (Basin Plan) for the Santa Ana Region

The Basin Plan describes existing water quality of conditions and establishes water quality goals and policies. The Basin Plan is also the basis for the Regional Board's regulatory programs. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality which must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the Regional Board and others that are necessary to achieve and maintain target water quality standards.

The primary goal of the Santa Ana Basin Plan is to protect the public health and welfare, while maintaining or enhancing water quality potential beneficial uses of the water. The Basin Plan reflects amendments approved by the State Water Resources Control Board, the California Office of Administrative Law, and/or the U.S. Environmental Protection Agency through 2005. The Basin Plan in its entirety can be reviewed at: http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml. The Project would be required to implement and comply with SARWQCB water quality protection policies and mandates.

4.7.3.5 City of Ontario

General Plan Goals and Policies

The Environmental Resources and Safety Elements of the City Policy Plan establish Goals and Policies addressing hydrologic and water quality issues and concerns. Goals and policies implemented by the City support avoidance of flood hazards, protection against potential flooding impacts, establishment and maintenance of safe and efficient storm water management systems, and protection and maintenance of water quality.

City Municipal Code

The City of Ontario Flood Damage Prevention Program (FDPP) is included as Title 8, Chapter 13 of the City's Municipal Code. The FDPP applies to all areas of special flood hazards, areas of flood-related erosion hazards and areas of mudflow hazards within the City. The FDPP includes standards for construction, for utilities, subdivisions, manufactured homes, and floodways. Construction standards include requirements for anchoring, floodproofing, and minimum elevations of floors.

4.7.4 STANDARDS OF SIGNIFICANCE

Consistent with the standards of significance outlined in the *CEQA Guidelines*, hydrology/water quality impacts would be considered potentially significant if the Project would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:
 - result in substantial erosion or siltation on- or off-site;
 - substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - impede or redirect flood flows.
- Result in release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.7.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.7.5.1 Introduction

The following discussions focus on topical areas and issues where it has been determined, pursuant to the EIR Initial Study/NOP processes, that the Project may result in or cause potentially significant hydrology/water quality impacts. Of the CEQA threshold considerations identified above at Section 4.7.4, and as substantiated in the Initial Study (EIR Appendix A), the Project's potential impacts under the following topics are determined to be less-than-significant, and are not further substantively discussed here:

- Potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.

All other CEQA topics concerning the Project's potential impacts to hydrology/water quality are discussed below. Please also refer to Initial Study Checklist Item X., *Hydrology and Water Quality*.

4.7.5.2 Impact Statements

Potential Impact: *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.*

Impact Analysis:

Project SWPPPs and Compliance with Regulatory Requirements Address Construction-Source Water Quality Impacts

During site preparation activities prior to construction, existing groundcover will be removed from the site, exposing the Project area to increased wind and water erosion potentials. Further, construction site runoff may carry increased loads of sediment, heavy metals and petroleum hydrocarbons (from machinery) which could degrade water quality. In accordance with NPDES requirements, the Project Development Contractors (Contractors) would be required to prepare a construction activities erosion control plan to alleviate potential sedimentation and storm water discharge contamination impacts of the Project.

Contractors shall also be responsible for compliance with the General Construction NPDES permit from the SARWQCB by filing a Notice of Intent to Commence Construction Activities. Under the General Construction Permit, discharge of materials other than storm water is prohibited. Contractors shall prepare, retain at the construction site, and implement Storm Water Pollution Prevention Plans (SWPPPs) that identify the sources of sediments and other pollutants that affect the quality of storm water discharge, and implement practices to reduce sediment and other pollutants to storm water discharge. The SWPPPs also identify both construction and post-construction BMPs to reduce sediments and other pollutants. BMPs mandated by the requisite NPDES permit typically include installation of filter fabric fences, sandbars and checkdams. Construction BMPs for developments within the Project site would likely include, but not be limited to:

- Silt Fences;
- Check Dams;
- Gravel Bag Berms;
- Street Sweeping and Vacuuming;
- Sandbag Barriers;
- Storm Drain Inlet Protection;
- Wind Erosion Control;

- Stabilized Construction Entrance/Exit; and
- Entrance/Outlet Tire Wash.

Implementation of the SWPPPs and compliance with applicable NPDES and SARWQCB requirements will reduce potential construction-source water quality impacts to levels that would be less-than-significant.

Project WQMPs and Compliance with Regulatory Requirements Address Operational-Source Water Quality Impacts

Over the life of the Project uses, contaminants such as oil, fuel and grease that are spilled or left behind by vehicular traffic, collect and concentrate on paved surfaces. During storm events, these contaminants are washed into the storm drain system and may potentially degrade receiving water quality. Storm water runoff from paved surfaces within the developed Project site could carry a variety of urban wastes, including greases and oils and small amounts of metals which are common by-products of vehicular travel. In addition, storm runoff will likely contain residual amounts of fertilizers and plant additives washed off from landscaped areas within the Project site.

Recognizing the potential hazards of such urban runoff, the EPA has issued regulations which required municipalities to participate in the NPDES. As part of this program, San Bernardino County has received an NPDES permit for urban runoff. Compliance with the provisions specified in the NPDES permit ensures proper management and disposal of urban runoff from the Project.

Contractors shall be responsible for obtaining a General Permit for storm water discharge from the SARWQCB, in accordance with the Notice of Intent instructions. Under the General Permit, discharge of materials other than storm water is prohibited. In support of the above requirements, Contractors shall also develop and implement a development-specific Water Quality Management Plans (WQMPs) addressing all post-construction pollutant discharges. To the extent feasible, individual development proposals implemented within the Project site would employ permeable materials and landscaped areas to enhance on-site capture and absorption of stormflows. The Project would also provide for elimination/reduction of pollutant discharges, including capture

and treatment of dry weather and first flush runoff in a manner consistent with City and SARWQCB policies and requirements. BMPs to be implemented under the WQMPs would likely include, but not be limited to the following:

Source Control/Non-Structural BMPs

- Education of Property Owners;
- Spill Contingency Plan;
- Employee Training/Education Program;
- Street Sweeping of Private Streets and Parking Lots;
- Common Areas Catch Basin Inspection;
- Landscape Planning;
- Hillside Landscaping;
- Roof Runoff Controls;
- Efficient Irrigation;
- Protection of Slopes and Channels;
- Storm Drain Signage;
- Inlet Trash Racks;
- Energy Dissipaters;
- Trash Storage Areas and Litter Control;
- Maintenance Bays and Docks Drainage Controls; and
- Outdoor Material Storage Area Drainage Controls.

Site Design/Structural BMPs

- Infiltration and Biofiltration Basins;
- Maximize Permeable Areas;
- Minimize Street, Sidewalk, and Parking Lot Aisle Widths;
- Minimize Impervious Hardscape Features;
- Maintain Natural Drainage Patterns;
- Incorporate Drought-Tolerant Landscaping;
- Perforated Pipes and Gravel Filtration Areas;
- On-site Vegetated Swales;

- Convey Runoff to Landscaping/Permeable Areas Prior to Discharge to Storm Drains;
- Drain Sidewalks and Walkways to Adjacent Landscape Areas; and
- Integration of Landscaping and Drainage Designs.

The Project shall comply with all requirements of the MS4 Permit, as well as the Trash Mandate adopted by the SARWQCB. All storm water discharges from the developed Project site shall comply with applicable provisions of the County's National Pollutant Discharge Elimination System (NPDES) permit. Consistent with SARWQCB and City requirements, waste materials will not be discharged to drainage areas, streambeds, or streams. Nor will spoil sites be located in areas that could result in spoil materials being washed into a water body.

Implementation of the WQMPs and compliance with applicable NPDES and SARWQCB requirements will reduce potential operational-source water quality impacts to levels that would be less-than-significant.

Project Improvements Would Eliminate or Reduce Existing Water Pollutant Sources

The Project would connect to the existing sanitary sewer system serving the Project area and does not propose or require septic systems or other alternative treatment of wastewater. Existing private septic systems within the Project site would be properly abandoned prior to Project grading and construction, in compliance with the regulations of the Santa Ana Regional Water Quality Control Board; San Bernardino County Department of Environmental Health; the California Uniform Plumbing Code; and Manual of Septic Tank Practice as published by the U.S. Department of Health, Education and Welfare; and the rules, standards and regulations of the City. Elimination of the existing septic systems would act to generally reduce the potential for groundwater contamination that can arise from such systems. Also, existing private wells within the Project site would be abandoned and capped as part of the site preparation process, consistent with applicable regulations of the State of California Department of Water Resources (as reflected in Bulletins 74-81 and 74-90); the San Bernardino County Department of Environmental Health; and the Santa Ana Regional Water Quality

Control Board. Abandonment and capping of these wells would eliminate direct withdrawals of groundwater; and would protect groundwater quality by reducing locations where polluted surface waters could be directly introduced to the groundwater table.

The Project's plans for construction of and connection to sanitary sewer infrastructure facilities are subject to review and approval by the City. The Project Applicant would also be required to apply for service and pay a mandated Connection Fee and ongoing Service Fees. Fees paid by the Project would be applied toward maintenance and expansion of serving wastewater conveyance and treatment facilities. Wastewater generated by the Project is typical of urban generators and wastewater resulting for the Project uses will not require treatment beyond that provided by existing facilities.

As supported by the preceding discussions, the potential for the Project to violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality is determined to be less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impacts: *Substantially alter the existing drainage pattern of the site or area in a manner that would substantially increase the rate or amount of runoff that would result in flooding on- or offsite; Substantially alter the existing drainage pattern of the site or area in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.*

Impact Analysis: The Project overall drainage concept maintains the site's north – south/northeast – southwest trending drainage patterns. The Project Hydrology Study does not indicate any potentially adverse impacts that could result from post-development drainage patterns.

Under the MDP, stormwater discharges from the Project site would be directed to Zones XII and XIII. Stormwaters from approximately 350 acres of the Project site would discharge to MDP Zone XII storm drain systems; stormwaters from the remaining 40 acres of the Project site would discharge to Zone XIII storm drain systems. The MDP hydrological assumption for the Project site is 90% impervious surfaces and 10% pervious surfaces. This assumption establishes a conservative likely maximum stormwater discharge condition. The Project would implement business park/warehouse uses that would result in site development consistent with the MDP hydrological assumptions. Stormwater discharges from the Project site would not exceed the MDP hydrological assumptions and would therefore not exceed planned capacity of the serving MDP storm drain system (Project Hydrology Study, p. 2). Please refer also to detailed hydraulic calculations at Project Hydrology Study Appendices A and B.

The Project would construct MDP facilities consistent with City requirements. The MDP facilities have been designed to accept stormwater runoff from the Project site under full buildout conditions. The MDP has been planned and designed to accept and convey stormwater discharges that would result from City Buildout conditions, including buildout of the Project site and surrounding areas of Ontario Ranch. The Project would implement business park/warehouse uses that would result in site development consistent with the MDP hydrological assumptions. Stormwater discharges from the Project site would not exceed the MDP hydrological assumptions and would therefore not result in stormwater discharges that would exceed the capacity of existing or planned MDP stormwater drainage systems or result in runoff that would result in on-site or off-site flooding.

All Project stormwater management system improvements would be required to be developed and operated in compliance with City/SARWQCB regulations and water quality standards.

Within the Project site, individual development proposals would be required to incorporate all necessary drainage and stormwater management systems, and comply with all stormwater system design, construction, and operational requirements mandated through the City's established development review processes. In these regards, the

Project would be required to comply with City Standard Conditions of Approval addressing hydrology and water quality concerns. These Conditions of Approval include:

- Standard Condition (SC) 3.66: A hydrology study and drainage analysis, prepared in accordance with the San Bernardino County Hydrology Manual and the City of Ontario's Standards and Guidelines, and signed by a Civil Engineer registered in the State of California, shall be submitted to the Engineering Department prior to Grading Plan approval. Additional drainage facilities may be required as a result of the findings of the study.
- SC 3.68: Prior to Grading Plan approval and the issuance of a grading permit, an Erosion and Sediment Control Plan shall be submitted to, and approved by, the Engineering Department. The Erosion and Sediment Control Plan shall identify the Best Management Practices (BMPs) that will be implemented by the Project during construction in order to reduce the discharge of sediment and other pollutants into the City's storm drain system.
- SC 3.69: Prior to Grading Plan approval and the issuance of a grading permit, a completed Water Quality Management Plan (WQMP) shall be submitted to, and approved by, the Engineering Department. The WQMP shall be submitted using the San Bernardino County Stormwater Program's model template and shall identify all Post Construction, Site Design, Source Control, and Treatment Control Best Management Practices (BMPs), that will be incorporated into the Project, in order to minimize any potential adverse impacts to receiving waters.⁵

⁵ City of Ontario. "Standard Conditions of Approval for New Development, Applicable to 'Ontario Ranch'" pp. 13, 14. *City of Ontario, California*. www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Documents/20170418-standard_conditions_for_new_development.pdf. Accessed 13 Nov. 2019.

In combination, the Project MDP facility improvements, on-site stormwater management components, and mandated compliance with regulatory requirements act to preclude potentially adverse drainage and stormwater runoff impacts.

As discussed previously in this Section, the Project would not result in substantial additional sources of polluted runoff or otherwise adversely affect water quality.

Based on the preceding, the potential for the Project to: substantially alter the existing drainage pattern of the site or area in a manner that would substantially increase the rate or amount of runoff that would result in flooding on- or offsite; or substantially alter the existing drainage pattern of the site or area in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff is determined to be less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Impede or redirect flood flows.*

Impact Analysis: As shown at Policy Plan Figure S-2, *Flood Hazards*, the Project site is located within a 500-year flood plain and is within the San Antonio Creek Dam Failure Inundation Area. The Project site does not, however, lie within a designated 100-year floodplain or other areas known to be subject to moving or high-velocity floodwaters. The Project does not propose or require facilities or operations that would otherwise impede or redirect flood flows. On this basis, the potential for the Project to impede or redirect flood flows is determined to be less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Under a flood, tsunami, or seiche event, release pollutants due to project inundation.*

Impact Analysis: The Project site is not located within an area subject to tsunami, or seiche events. There is no potential for the Project to be adversely affected in these regards.

The Project site does, however, lie within a 500-year floodplain and is within the San Antonio Creek Dam Failure Inundation Area. There is therefore the potential for the Project generally to be subject to inundation under 500-year flood conditions or in the event of the San Antonio Creek Dam failure. Either of these are relatively low probability events. Catastrophic failure of the San Antonio Dam when it is at or near capacity could spread water two to four feet deep over the western and central parts of the City. However, the City has never experienced such an event.

The Ontario Plan EIR concluded that the probability of catastrophic failure is very low. Furthermore, the City of Ontario Fire Department maintains a list of emergency procedures to be followed in the event of a dam failure (Ontario Plan EIR, p. 5.9-23). Because the likelihood of catastrophic failure of the San Antonio Dam is very low and the City is prepared in the event of such failure, impacts related to potential release of pollutants under dam failure conditions are considered less-than-significant.

Potential for release of pollutants under 500-year flood conditions or in the event of dam failure is minimized through the location, orientation, and construction of Project facilities consistent with City Building Code requirements and implementation of the Project stormwater management system improvements described in this Section. Additionally, the Project uses would be required to develop and implement Hazardous Materials Release Response Plans and Inventory (Business Plans) that specifically address storage and use of hazardous materials so as to minimize their potential release, containment of hazardous materials and related pollutants that may be released under emergency conditions, and measures to reduce potential effects of hazardous materials and related pollutants if released.

Based on the preceding, the potential for release of pollutants due to project inundation under a flood, tsunami, or seiche event is determined to be less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

Impact Analysis: As discussed within this Section, the Project would implement water quality control measures consistent with City and SARWQCB requirements. The Project would there not result in potentially adverse water quality impacts and would not conflict with or obstruct implementation of a water quality control plan, in this instance, the Water Quality Control Plan for the Santa Ana Region.

The City of Ontario draws all of its groundwater supply from the Chino Basin. Since 1978, the basin has been managed via ongoing court adjudication in the 1978 judgment Chino Basin Municipal Water District vs. City of Chino et al. The Project does not propose or require direct withdrawal of groundwater. Neither would the Project adversely affect designated groundwater recharge areas or groundwater recharge facilities. To the extent practical, individual development proposals within the Project site would implement LID measures facilitating infiltration of treated stormwaters to the groundwater table. Further, the Project would eliminate existing private groundwater wells within the Project site. Abandonment and capping of these wells would eliminate direct withdrawals of groundwater; and would protect groundwater quality by reducing locations where polluted surface waters could be directly introduced to the groundwater table.

Based on the preceding, the potential for the Project to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan is determined to be less-than-significant.

Level of Significance: Less-Than-Significant.

4.8 BIOLOGICAL RESOURCES

4.8 BIOLOGICAL RESOURCES

Abstract

This Section identifies and addresses potential impacts to biological resources resulting from the Project. More specifically, the analysis presented here examines whether the Project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites;*
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

As supported by the analysis presented in this Section, with application of proposed mitigation measures, the Project's potential impacts to biological resources are determined to be less-than-significant.

4.8.1 INTRODUCTION

Following are discussions of existing biological resources characteristic of the Project area, with focused consideration on species of special interest known to occur, or that could potentially occur on the Project site. Potential impacts to biological resources are identified, and mitigation of potentially significant impacts is proposed.

Information presented in this Section is summarized and excerpted from: *Biological Technical Report for Merrill Commerce Center Specific Plan, Located in the City of Ontario, San Bernardino County, California with Off-Site Improvements Located in the Cities of Ontario and Chino, San Bernardino County, California* (Glenn Lukos Associates, Inc.) September 19, 2019 (Project Biological Resources Report). Primary elements of the Project Biological Resources Report include:

- Delineation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and CDFW;
- Performance of vegetation mapping; and
- Performance of habitat assessments, and site-specific biological surveys, to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA.

Surveys and assessments conducted as part of the Project Biological Resources Report are summarized at Table 4.8-1.

**Table 4.8-1
Summary of Project Biological Surveys/Assessments**

| Survey/Assessment | Survey/Assessment Dates |
|---|---|
| General Biological Survey | 4/4/18, 4/5/18, 4/11/18 |
| Focused Burrowing Owl Surveys | 4/4/18, 4/5/18, 4/11/18, 4/14/18, 5/11/18, 5/18/18, 5/22/18, 4/9/2019, 5/23/19, 6/19/19, 7/11/19 |
| Focused Special-status Plant Surveys | 4/4/18, 4/5/18, 4/19/18, 5/18/18, 5/22/18, 7/13/18, 4/9/19, 5/23/19, 6/19/19 |
| Delhi Sands Flower-Loving Fly Focused Habitat Assessment | September 2018, February 2019 |
| Jurisdictional Delineation | 9/12/18 |

Source: *Biological Technical Report for Merrill Commerce Center Specific Plan, Located in the City of Ontario, San Bernardino County, California with Off-Site Improvements Located in the Cities of Ontario and Chino, San Bernardino County, California* (Glenn Lukos Associates, Inc.) September 19, 2019.

Graphic representations of survey areas, and detailed survey mapping results are appended to the Project Biological Resources Report (Appendices 1–3). Analysis of potential impacts of the proposed waterline segment along Chino Avenue between Grove Avenue and the Cucamonga Channel was prepared based on information from the *General Biological Assessment for Ontario Ranch Business Center* (Hernandez Environmental Services) September 2018.

Both of these Biological Reports are presented in their entirety at EIR Appendix I.

4.8.2 SETTING

The entirety of the Study Area is subject to decades-long human disturbance, such as farming, trucking operations, public roadways, and flood control facilities. The Project site currently evidences a dairy farm with interior unpaved roads, cattle stockades, support equipment for cattle and dairy farming, bio-retention basins located at the southern boundary, a trucking operation on the eastern portion, and appurtenant residences at various locations within the Project site.

The Project site is extensively disturbed and evidences environmental degradation due to historic and on-going agricultural and trucking uses. Such degradation includes, but is not limited to:

- Animal waste from the long-term dairy farm uses have potentially created methane gas, and soil contamination from nitrates and ammonia.
- Numerous automotive fluids, including several large above ground storage tanks (ASTs) on or near the on-site maintenance shop. These materials are used for maintaining and repairing farm equipment.
- Additional ASTs used for truck and equipment refueling are located on-site.
- A scrap metal area containing drums, ASTs, farming equipment, and vehicles is located on the property.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to the pastures for irrigation.
- Holding ponds for contaminated runoff from agricultural/dairy farm operations. Discharge from these ponds to surrounding areas; and potential infiltration of contaminated runoff to underlying groundwater.
- General debris observed throughout the property, including vehicle equipment staging areas, used tires, concrete rubble piles, compressors, and generators may have the potential to impact on-site surficial soil.
- Presence of septic systems.

Please refer also to EIR Section 3.0, *Project Description*, 3.2, *Existing Land Uses*.

The Project site topography evidences little internal difference, with a general northeast to southwest downward trending slope. Elevations within the Project site range from approximately 686 feet above mean sea level (amsl) at the northeast corner of the Project site, to approximately 651 feet amsl at the southwest corner of the Project site.

4.8.2.1 Vegetation Communities/Habitat Types

Two different land cover types have been identified within the Study Area, “agriculture” and “disturbed/developed,” as illustrated at Figure 4.8-1 and discussed below.

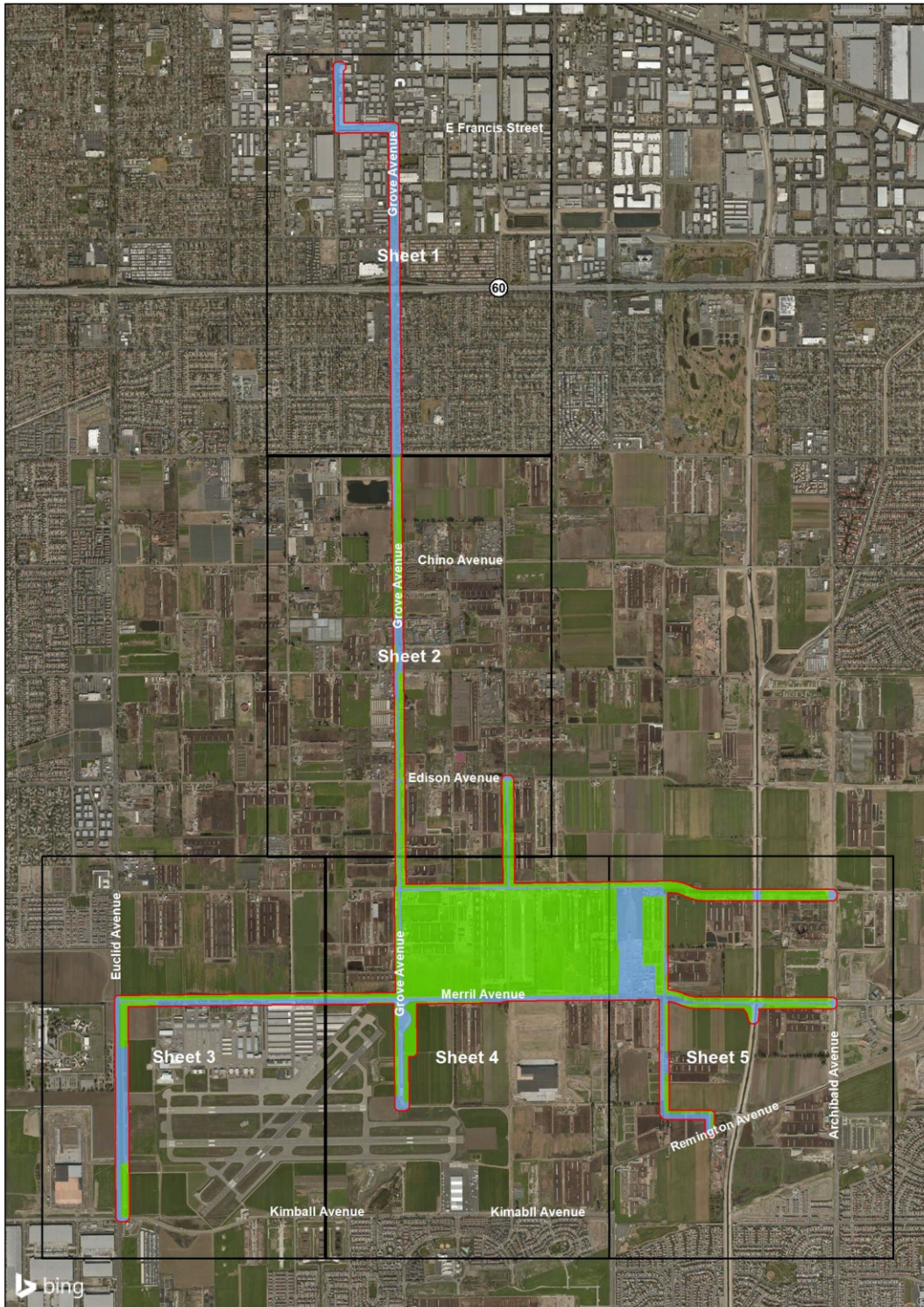
Agriculture

Agricultural areas within the Study Area consist of active dairy operations and row crops. Areas associated with the dairy operations include corrals, pastures, and treatment basins designed to retain all runoff from the associated facilities. Row crops include active production fields, such as corn. Current and historic agricultural/dairy farming uses have contributed to site degradation and adverse environmental conditions affecting the Project site. These conditions include:

- Contamination from animal waste;
- Creation of methane gas, a potentially hazardous material and GHG contributor;
- Storage, use, and spillage/leakage of chemicals associated with dairy operations;
- Above ground and underground storage, use, and spillage/leakage of petroleum products associated with agricultural machinery and farm equipment;
- Presence of general debris, scrap metal, concrete rubble, and used tires;
- Various compressors and generators located throughout the site, and surrounding areas of potentially contaminated soils; and
- Use of private septic systems.

Disturbed/Developed

Disturbed/developed areas within the Study Area consist of residential and commercial development, agricultural processing facilities, public road facilities, and flood control facilities. These areas have been subject to decades-long maintenance, ongoing human disturbance, and environmental concerns such as those noted above.



NOT TO SCALE

Source: Glenn Lukos Associates, Inc.

- Project Study Area
- Agriculture
- Disturbed/Developed

Figure 4.8-1
Vegetation Communities

4.8.2.2 Special-Status Plant Species

Based on research including mapping and previous biological investigations, the following 11 special-status habitats have been identified as occurring within the vicinity of the Study Area: California walnut woodland, Riversidean alluvial fan sage scrub, Southern California arroyo chub/Santa Ana sucker stream, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern interior cypress forest, southern riparian forest, southern riparian scrub, southern sycamore alder riparian woodland, southern willow scrub, and walnut forest. Table 4-2 of the Biological Technical Report provides a complete inventory of all special-status plants evaluated through general biological surveys, habitat assessments, and focused surveys. As shown, no special-status plants were detected within the Study Area.

4.8.2.3 Wildlife Overview

Wildlife species detected consist of those typically expected in an urbanized agricultural setting, and include: western fence lizard (*Sceloporus occidentalis*), rock pigeon (*Columba livia*), Eurasian collared-dove (*Streptopelia decaocto*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Psaltiriparus minimus*), white-crowned sparrow (*Zonotrichia leucophrys*), savannah sparrow (*Passerculus sandwichensis*), Anna's hummingbird (*Calypte anna*), Bewick's wren (*Thryomanes bewickii*), red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), American kestrel (*Falco sparverius*), turkey vulture (*Cathartes aura*), black phoebe (*Sayornis nigricans*), western kingbird (*Tyrannus verticalis*), Cassin's kingbird (*Tyrannus vociferus*), European starling (*Sturnus vulgaris*), Brewer's blackbird (*Euphagus cyanocephalus*), brown-headed cowbird (*Molothrus ater*), yellow-rumped warbler (*Setophaga coronata*), killdeer (*Charadrius vociferus*), northern mockingbird (*Mimus polyglottos*), common raven (*Corvus corax*), American crow (*Corvus brachyrhynchos*), Botta's pocket gopher (*Thomomys bottae*), desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), domestic cat (*Felis silvestris*), and domestic dog (*Canis familiaris*).

4.8.2.4 Special-Status Wildlife Species

Table 4-3 of the Biological Technical Report provides a complete list of all special-status species evaluated for the Study Area through general biological surveys, habitat

assessments, and focused surveys. Of the species evaluated, those with the potential to occur within the Study Area are listed at Table 4.8-2.

**Table 4.8-2
Special-Status Wildlife Species with Potential to Occur Onsite**

| Species | Status | Occurrence |
|---|--|------------------------------|
| American peregrine falcon (nesting) <i>Falco peregrinus anatum</i> | Federal: Delisted State: Delisted, FP | Potential for foraging only. |
| Bald eagle (nesting & wintering) <i>Haliaeetus leucocephalus</i> | Federal: Delisted State: SE, FP | Potential for foraging only. |
| Burrowing owl (burrow sites & some wintering sites) <i>Athene cunicularia</i> | Federal: None State: SSC | Present-single owl observed. |
| Golden eagle (nesting & wintering) <i>Aquila chrysaetos</i> | Federal: None State: FP | Potential for foraging only. |
| Swainson's hawk (nesting) <i>Buteo swainsoni</i> | Federal: None State: ST | Potential for foraging only. |
| White-tailed kite (nesting) <i>Elanus leucurus</i> | Federal: None State: FP | Moderate potential to occur. |
| Yellow-headed Blackbird (nesting) <i>Xanthocephalus xanthocephalus</i> | Federal: None State: SSC | Present-foraging. |
| Yellow warbler (nesting) <i>Setophaga petechia</i> | Federal: None State: SSC | Present-foraging. |
| Big free-tailed bat <i>Nyctinomops macrotis</i> | Federal: None State: SSC | Potential for foraging only. |
| Pallid bat <i>Antrozous pallidus</i> | Federal: None State: SSC | Potential for foraging only. |
| Western mastiff bat <i>Eumops perotis californicus</i> | Federal: None State: SSC | Potential for foraging only. |
| Western red bat <i>Lasiurus blossevillii</i> | Federal: None State: SSC | Potential to occur. |
| Western yellow bat <i>Lasiurus xanthinus</i> | Federal: None State: SSC | Potential to occur. |

Source: Biological Technical Report for Merrill Commerce Center Specific Plan, Located in the City of Ontario, San Bernardino County, California with Off-Site Improvements Located in the Cities of Ontario and Chino, San Bernardino County, California (Glenn Lukos Associates, Inc.) September 19, 2019.

Notes:

FP – California Fully-Protected Species
SE – State Endangered
SSC – Species of Special Concern
ST – State Threatened

4.8.2.5 Jurisdictional Areas

Jurisdictional areas within the Study Area include Cucamonga Channel, Grove Channel, and two ephemeral drainages. Areas within the Study Area subject to the jurisdiction of the Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife are depicted at Figures 4.8-2 and 4.8-3.

These drainages are flood control facilities, and are subject to ongoing maintenance. They do not support jurisdictional wetlands or riparian vegetation communities. No jurisdictional wetlands or riparian habitat exists within the Study Area.

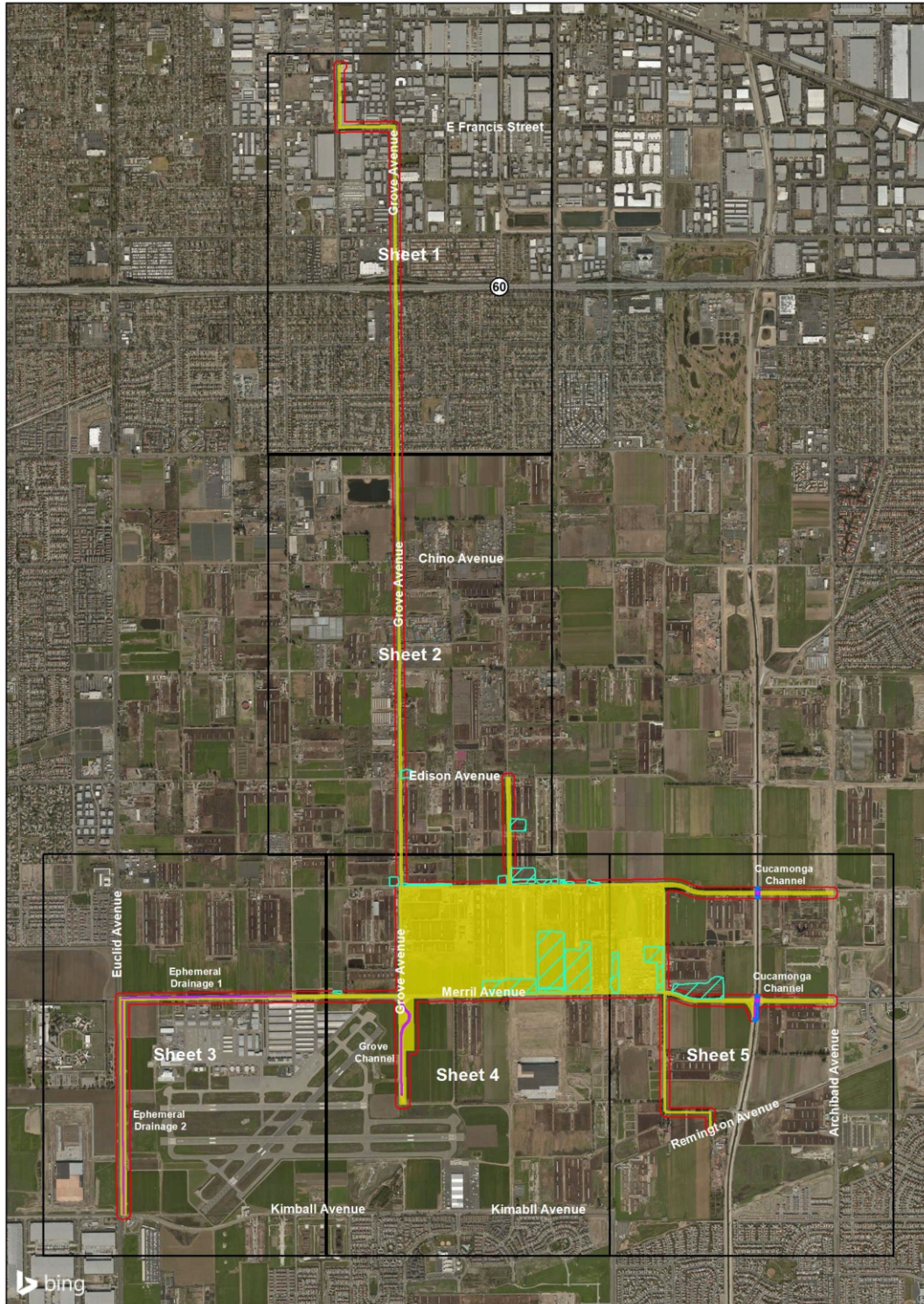
4.8.2.6 Nesting Birds

The Study Area contains trees, shrubs, and ground cover that provide suitable habitat for nesting migratory birds. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.

4.8.2.7 Wildlife Movement Corridors and/or Nurseries

The Study Area lacks migratory wildlife corridors, as it does not contain the structural topography and vegetative cover that facilitate regional wildlife movement. Additionally, the Study Area is subject to a high level of ongoing human disturbance, and much of the Study Area is fenced or consists of active public roadways, which act as barriers to wildlife movement. Additionally, environmental concerns noted previously (see Section 4.8.2, *Setting*) discourage use of the Project site as a potential migratory corridor.

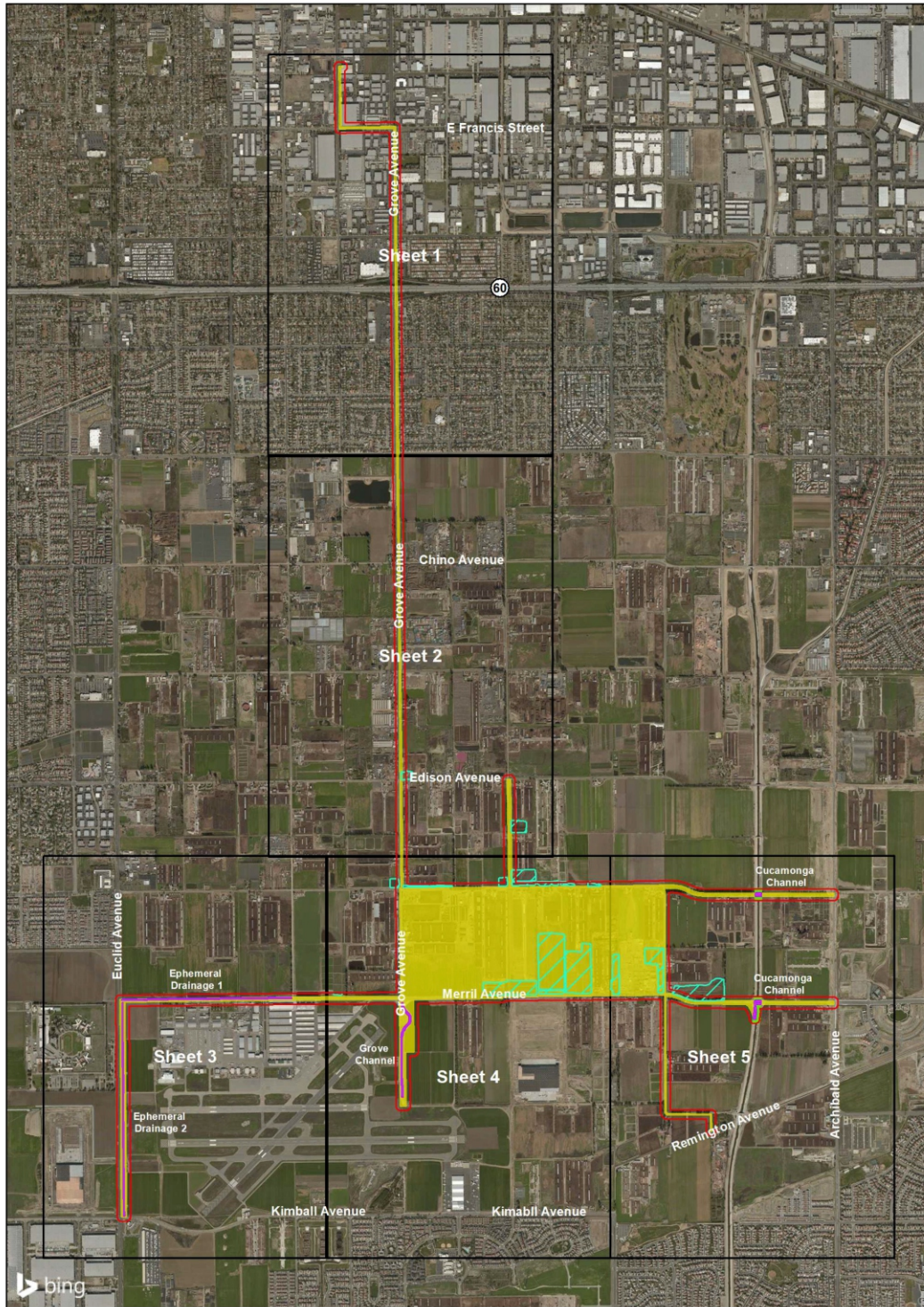
The large ornamental trees within the Study Area may potentially represent a nursery site for the western red bat, western yellow bat, or other non-special-status lasiurine bat species (or nesting birds, as discussed above).



NOT TO SCALE

Source: Glenn Lukos Associates, Inc.

- Project Study Area
- Project Footprint
- Corps/RWQCB Non-Wetland Waters
- Impacted Corps/RWQCB Non-Wetland Waters
- Non-jurisdictional Waste Treatment Basin




 NOT TO SCALE

Source: Glenn Lukos Associates, Inc.






-  Project Study Area
-  Project Footprint
-  CDFW Non-Riparian Stream
-  Impacted CDFW Non-Riparian Stream
-  Non-jurisdictional Waste Treatment Basin

Figure 4.8-3
CDFW Jurisdictional Areas

4.8.3 EXISTING POLICIES AND REGULATIONS

4.8.3.1 Federal Endangered Species Act/California Endangered Species Act

The United States Congress passed the federal Endangered Species Act (ESA) in 1973 to protect those species that are endangered or threatened with extinction. The State of California enacted a similar law, the California Endangered Species Act (CESA) in 1984. The state and federal Endangered Species Acts are intended to operate in conjunction with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. The United States Fish and Wildlife Service (USFWS) is responsible for implementation of ESA, while the CDFW implements CESA. During Project review, each agency is given the opportunity to comment on the potential of the Project to affect listed plants and animals.

4.8.3.2 State of California, Department of Fish and Wildlife

The CDFW has jurisdiction under Section 1600 *et seq.* of the California Fish and Game Code over fish and wildlife resources of the State. Under Section 1602, a private party must notify the CDFW if a project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, except when the department has been notified pursuant to Section 1601.” If an existing fish or wildlife resource may be substantially adversely affected by the activity, the CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the initiating party, they may enter into an agreement with the CDFW identifying the approved activities and associated mitigation measures.

4.8.3.3 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Army Corps of Engineers (Corps) regulates the discharge of dredged and/or fill material into waters of the United States.

4.8.3.4 Regional Water Quality Control Board

Section 401 of the Clean Water Act requires any applicant for a Section 404 permit to obtain certification from the State that the discharge (and the operation of the facility being constructed) will comply with the applicable effluent limitation and water quality standards. In California, this 401 certification is obtained from one of the State's nine Regional Water Quality Control Boards. The Corps cannot issue a Section 404 permit until a 401 certification is issued or waived.

4.8.3.5 City of Chino, The Preserve Resource Management Plan

Off-site flood control improvements, which are necessary to accommodate development of the Merrill Commerce Center Specific Plan, extend outside of the corporate boundaries of the City of Ontario and are located within the boundary of the City of Chino's "The Preserve Specific Plan." A Resources Management Plan (RMP) was adopted to comprehensively address biological impacts of implementing the Specific Plan.

Germane to the Merrill Commerce Center Specific Plan, the RMP addresses mitigation requirements for impacts to burrowing owls. The RMP states that the 1995 CDFG Staff Report on Burrowing Owl Mitigation (as supplemented by the RMP) shall be followed when burrowing owls are detected on properties. If avoidance of occupied habitat is infeasible, provisions shall be made to passively relocate owls from sites in accordance with the 2012 CDFG Staff Report.

According to the Preserve EIR and RMP, burrowing owls to be relocated from properties within the City's Subarea 2 are intended to be accommodated within a "300-acre conservation area" and/or additional Candidate Relocation Areas as described on Page 4-16 and 4-21 of the RMP. One such contingency conservation area is identified in the RMP as "Drainage Area B."

Drainage Area B consists of a series of Natural Treatment System (NTS) facilities that were constructed south of Kimball Avenue and west of Mill Creek Road. When the NTS facilities were constructed, approximately 50 artificial owl burrows were installed within the basins to accommodate relocated owls and additional owls dispersing to the site. This

location was given top priority as an owl relocation site by the RMP due to its proximity to areas that have been and will be converted to urban development.

4.8.3.6 Other Statutes, Codes, and Policies

In addition to formal listing under ESA and CESA, plant and wildlife species receive additional consideration during the CEQA process as discussed below.

Species of Special Concern

Species that may be considered for focused review are included on CDFW's list of "Species of Special Concern." Species of Special Concern are generally defined as those California species whose numbers, reproductive success, or habitat may be threatened.

CNPS-Listed Plants

The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

Raptors and Migratory Birds

Raptors (birds of prey), migratory birds, and other avian species are protected by state and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

4.8.4 STANDARDS OF SIGNIFICANCE

CEQA has identified the following significance thresholds relative to biological resources. If the Project would result in any one of the following, its impacts to biological resources would be considered significant.

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.8.4.1 Introduction

The following discussions focus on those areas where it has been determined that the Project may result in potentially significant biological resources impacts, based on the analysis presented within this Section and included within the EIR Initial Study (EIR

Appendix A), and responses received pursuant to the EIR Notice of Preparation. Please refer also to Initial Study Checklist Item IV. *Biological Resources*.

4.8.4.2 Impact Statements

Potential Impact: *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*

Impact Analysis:

Special-Status Plant Species

The Study Area is not located within a sensitive biological area, or a designated conservation or habitat area. According to The Ontario Plan Draft Environmental Impact Report (p. 5.4-14), no sensitive plant species have been observed in the City of Ontario since 1992. Additionally, as previously presented at Section 4.8.2.2, the Biological Technical Report determined that the Study Area does not support any special-status plants or habitats.

Special-Status Wildlife Species

The following discussions summarize potential impacts to the special-status species identified in previous Table 4.8-2.

Bald Eagle, Golden Eagle, Swainson's Hawk, and American Peregrine Falcon

The bald eagle, golden eagle, Swainson's hawk, and American peregrine falcon have the potential to forage within the Study Area. However, these species are not expected to nest within the Study Area, as it is located outside of the known nesting range and/or does not contain suitable nesting habitat. With regard to potential foraging impacts, based on the level of ongoing human disturbance within the Project study area, and the regional availability of foraging habitat in the vicinity of the Project site, such as the Prado Basin, Chino Hills State Park, and the Santa Ana Mountains, the loss of low-quality

potential foraging habitat resulting from development of the Project is considered less-than-significant (Project Biological Resources Report, p. 38, et al.).

Burrowing Owl

A single burrowing owl was detected within the Study Area. This owl was observed approximately 1,000 feet southerly of the Specific Plan area, along the western bank of the Grove Channel within the Chino Airport property. This single burrowing owl was likely breeding based upon its presence only during the breeding season. This owl could be adversely affected by construction of Project off-site infrastructure improvements. Impacts to this species are considered potentially significant; please refer to Mitigation Measures 4.8.1 and 4.8.2, presented subsequently.

White-Tailed Kite

There is moderate potential for the white-tailed kite to nest within large ornamental trees and forage throughout the Study Area. No take of this species is permissible under the California Fish and Game Code. With regard to potential foraging impacts, based on the level of ongoing human disturbance within the Project study area, and the regional availability of foraging habitat in the vicinity of the Project site, such as the Prado Basin, Chino Hills State Park, and the Santa Ana Mountains, the loss of low-quality potential foraging habitat resulting from development of the Project is considered less-than-significant (Project Biological Resources Report, p. 38, et al.). Direct take or any impact to this species under a nesting role is considered a potentially significant impact. Active nests are protected under Mitigation Measure 4.8.3, presented subsequently.

Yellow Warbler and Yellow-Headed Blackbird

Yellow warbler and yellow-headed blackbird were observed foraging within ornamental plantings within the Study Area. Nesting habitat for these species is not present within the Study Area. As these species' special status is limited to a nesting role, development of the Project would not result in significant impacts to these species. Additionally, as these species are habitat generalists during migration and foraging, the loss of foraging habitat from development of the Project would be less than significant (Project Biological Resources Report, p. 37).

Bat Species

As presented previously in Table 4.8-2 of this section, development of the Merrill Commerce Center Specific Plan area would remove potential foraging habitat (agriculture) for five special-status bat species. However, based on the level of ongoing human disturbance within the Project study area, and the regional availability of foraging habitat in the vicinity of the Project site, such as the Prado Basin, Chino Hills State Park, and the Santa Ana Mountains, the loss of low-quality potential bat foraging habitat is not judged to be significant under CEQA (Project Biological Resources Report, p. 37).

Roosting and breeding by western red bat, western yellow bat, and other non-special-status lasiurine bats may occur within large ornamental trees located within and adjacent to the Study Area, with the highest likelihood occurring within large Eucalyptus trees and unmanicured palm trees. The removal of potential roosting/breeding bat habitats is considered a potentially significant impact; please refer to Mitigation Measure 4.8.4, presented below.

Jurisdictional Areas

Corps/Regional Board Jurisdiction

As previously discussed at Section 4.8.2.5, the drainages that would be affected by implementation of the Merrill Commerce Center Specific Plan are heavily impacted flood control facilities that are subject to ongoing maintenance. Although the drainages proposed for impacts are heavily denuded flood control facilities that are subject to ongoing maintenance and do not support jurisdictional wetlands or riparian vegetation communities, impacts to 2.14 acres of waters is potentially significant under CEQA due to the potential for this quantity of loss of surface waters to affect the hydrology supporting downstream wetland and/or riparian resources (Project Biological Resources Report, p. 39). CWA Section 404 authorization from the Corps and a CWA Section 401 Water Quality Certification and authorization for discharges under Porter-Cologne from the Regional Board would be required; please refer to Mitigation Measure 4.8.5, presented subsequently.

CDFW Jurisdiction

As with impacts to Corps and Regional Board jurisdiction, affected drainages are heavily impacted flood control facilities. Although the drainages proposed for impacts are heavily denuded flood control facilities that are subject to ongoing maintenance and do not support jurisdictional wetlands or riparian vegetation communities, impacts to 4.15 acres of streambed is potentially significant under CEQA due to the potential for this quantity of loss of surface streambeds to affect the hydrology supporting downstream wetland and/or riparian resources (Project Biological Resources Report, p. 39). As such, a CDFW Section 1602 Streambed Alteration Agreement would be required; please refer to Mitigation Measure 4.8.5, presented subsequently.

Nesting Birds

The Study Area contains trees, shrubs, and ground cover that provide suitable habitat for nesting migratory birds. These trees, shrubs, and ground cover would be removed as part of the Project. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. This is a potentially significant impact of the Project; please refer to Mitigation Measure 4.8.3, presented subsequently.

Level of Significance Before Mitigation: Potentially Significant.

Mitigation Measures:

4.8.1 A qualified biologist shall conduct a pre-construction presence/absence survey for burrowing owls within 14 days prior to site disturbance. If the species is absent, no additional mitigation is required. If burrowing owl(s) is (are) detected within the Project's disturbance footprint located within the City of Chino Preserve Resource Management Plan (RMP) boundary, the owl(s) are required to be handled as indicated by the RMP:

Prior to disturbance of occupied burrows (if any), suitable and unoccupied replacement burrows shall be provided at a ratio of 2:1 within the City of Chino designated relocation area (e.g., the NTS basins). A qualified biologist through coordination with the City shall confirm that the artificial burrows are currently unoccupied and suitable for use by owls.

Until suitable replacement burrows have been provided/confirmed within the designated relocation area (e.g., the NTS basins), no disturbance shall occur within 50 meters (approximately 160 feet) of occupied burrows during the nonbreeding season (September 1 through January 31) or within 75 meters (approximately 250 feet) during the breeding season (February 1 through August 31).

Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

If burrowing owls are present at the time that the occupied burrows are to be disturbed, then the owls shall be excluded from the site following the 2012 CDFG Staff Report and Table 4-6 of the RMP.

Pursuant to mitigation measure B-3(8) of The Preserve EIR, and as noted on Page 4-39 of the RMP, the Project shall pay the required mitigation fee prior to initiation of ground disturbing activities.

4.8.2 *If burrowing owl(s) is (are) detected within the Project's proposed disturbance footprint outside of the RMP boundary:*

Prior to disturbance of the occupied burrows, suitable and unoccupied replacement burrows shall be provided at a ratio of 2:1 within designated off-site conserved lands to be identified through coordination with CDFW and the City in which the burrowing owl(s) is(are) detected (either the City of Ontario or the City of Chino). A qualified biologist shall confirm that the artificial burrows are currently unoccupied and suitable for use by owls.

Until suitable replacement burrows have been provided/confirmed within the off-site conserved lands to be identified through coordination with CDFW and the City of Ontario or the City of Chino, no disturbance shall occur within 50 meters (approximately 160 feet)

of occupied burrows during the nonbreeding season (September 1 through January 31) or within 75 meters (approximately 250 feet) during the breeding season (February 1 through August 31).

Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

If burrowing owls are present at the time that the occupied burrows are to be disturbed, then the owls shall be relocated from the site following the 2012 [CDFW] Staff Report.

4.8.3 *Vegetation clearing should be conducted outside of the nesting season (February 1 through August 31) to avoid impacts to nesting birds, including raptors. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests (generally a minimum of 200 feet up to 500 feet for raptors and a minimum of 50 feet up to 300 feet for passerine species, with specific buffer widths to be determined by a qualified biologist), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.*

4.8.4 *For large ornamental trees suitable for bat roosting/nursery, exit counts and acoustic surveys shall be performed prior to initial ground disturbance and vegetation removal to determine whether the Project footprint and a 300-foot buffer supports a nursery or roost, and by which species. This survey work shall occur between late-spring and late summer and/or in the fall (generally mid-March through late October).*

If the results of the bat survey finds a single roosting individual of a special-status bat species or a total of a 25 or more individuals of non-special-status bat species with potential to be present in the Study area (i.e., western Mastiff bat, big free-tailed bat, pallid bat,

western red bat, and western yellow bat), a Bat Management Plan (Plan) shall be developed to ensure mortality to bats does not occur. For each location confirmed to be occupied by bats, the Plan shall provide details both in text and graphically where exclusion devices and/or staged tree removal will need to occur, the timing for exclusion work, and the timeline and methodology needed to exclude the bats. Preliminary Plan components and performance standards are outlined below:

To avoid the direct loss of bats that could result from removal of trees that may provide maternity roost habitat (e.g., in cavities or under loose bark), the following steps should be taken:

1) If trees and/or structures must be removed or disturbed as part of Project activities, a qualified bat specialist should conduct surveys to identify use of habitat by any bat species. Focused surveys using electronic detection should be used to identify general bat use and any special status bat species using any habitat proposed for removal or disturbance;

2) Maternity season lasts from March 1 to September 30. Trees and/or structures should not be removed until the end of the maternity season;

3) If bats are not detected, but the bat specialist determines that roosting bats may be present at any time of year, it is preferable to push any tree down using heavy machinery rather than felling it with a chainsaw. In order to ensure the optimum warning for any roosting bats that may still be present, the tree should be pushed lightly two to three times, with a pause of approximately 30 seconds between each nudge to allow bats to become active. The tree should then be pushed to the ground slowly and should remain in place overnight and until it is inspected by a bat specialist. Trees that are suspected to be bat roosts should not be sawed up or mulched immediately. A period of at least 24 hours, and preferably 48 hours, should elapse prior to such operations to allow bats to escape. Bats should be allowed to escape prior to demolition of buildings. This may be accomplished by placing one way exclusionary devices into areas where bats are entering a building that allow bats to exit but not enter the building;

4) *The bat specialist should document all demolition monitoring activities, and prepare a summary report to the Lead Agency upon completion of tree disturbance and/or building demolition activities. CDFW requests copies of any reports prepared related to bat surveys (e.g., monitoring, demolition);*

5) *If confirmed occupied or formerly occupied bat roosting and foraging habitat is destroyed, habitat of comparable size and quality should be preserved and maintained at a nearby suitable undisturbed area. The bat habitat mitigation shall be determined by the bat specialist in consultation with CDFW;*

6) *A monitoring plan should be prepared and submitted to the Lead Agency. The monitoring plan should describe proposed mitigation habitat, and include performance standards for the use of replacement roosts by the displaced species, as well as provisions to prevent harassment, predation, and disease of relocated bats; and,*

7) *Annual reports detailing the success of roost replacement and bat relocation should be prepared and submitted to Lead Agency and CDFW for five years following relocation or until performance standards are met, whichever period is longer.*

The Plan shall be reviewed and approved by CDFW prior to disturbance of any roost(s).

4.8.5 *Prior to the issuance of any grading permits and prior to any physical disturbance of any possible jurisdictional areas, the Project Applicant shall purchase credits from an approved mitigation bank/in-lieu fee program at a minimum of a 1:1 ratio, for a minimum of 4.15 acres (inclusive of the 2.14 acres of non-wetland Waters of the US) of mitigation credits, or a number of mitigation credits equal to Project impacts based on final Project design during aquatic permitting.*

If an approved mitigation bank/in-lieu fee program cannot be identified to mitigate the loss of Corps, Regional Board, and CDFW jurisdiction, the Project Applicant shall enhance, re-establish, or establish Corps, Regional Board, and CDFW jurisdictional areas on off-site conserved lands at a minimum of a 1:1 ratio, for a minimum of 4.15 acres (inclusive of the

2.14 acres of non-wetland Waters of the US) of enhancement, re-establishment, or establishment, or a number acres equal to Project impacts based on final Project design during aquatic permitting. Conservation and compensation shall conform to Conservation and Mitigation Banking Guidelines (CDFW) July 2019, to include applicable interagency (e.g., Corps, Regional Board, and USFWS) measures. See also: <https://wildlife.ca.gov/Conservation/Planning/Banking/Guidelines>.

Compensatory mitigation shall be coordinated with CWA 401 and 404 permitting and CDFW 1602 Streambed Alteration Agreement acquisition to ensure efficiency and efficacy of the mitigation effort.

Level of Significance after Mitigation: Less-Than-Significant. With the incorporation of Mitigation Measures 4.8.1 through 4.8.5, the potential for the Project to have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species is considered less-than-significant.

Potential Impact: *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

Impact Analysis: The Biological Technical Report found no riparian habitat, wetlands, or other sensitive natural community within the Study Area. As such, the potential for the Project to have a substantial adverse effect on any riparian habitat, federally protected wetlands, or other sensitive natural community is considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.*

Impact Analysis: As discussed previously at Section 4.8.2.7, the Biological Technical Report concluded that the Study Area lacks migratory wildlife corridors, as it does not contain the structural topography and vegetative cover that facilitate regional wildlife movement and is subject to a high level of ongoing human disturbance. Much of the Study Area is fenced or consists of active public roadways, which inhibits wildlife movement.

Impacts to nesting birds and bat species that could potentially use the area as a nursery site are addressed above via Mitigation Measures 4.8.3 and 4.8.4. With the incorporation of these measures, the potential for the Project to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites is considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

Impact Analysis: As discussed at previous Section 4.8.3.5, certain off-site flood control improvements proposed by the Merrill Commerce Center Specific Plan are located within the boundary of the City of Chino Preserve Resource Management Plan (RMP).

The applicable requirements of the RMP have been carried forward within this document as Mitigation Measure 4.8.1. No other local policies or ordinances, or habitat conservation plans are applicable to the Study Area.

On this basis, the potential for the Project to conflict with any local policies or ordinances protecting biological resources, an adopted Habitat Conservation Plan, Natural

Community Conservation Plan, or other approved local, regional, or state habitat conservation plan is considered less-than-significant.

Level of Significance: Less-Than-Significant.

4.9 GEOLOGY AND SOILS

4.9 GEOLOGY AND SOILS

Abstract

This Section addresses the potential for the Project to result in substantial geology or soils-related impacts. More specifically, this analysis presented here focuses on whether the Project would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking;*
- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction;*
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;*
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; or*
- Result in substantial soil erosion or the loss of topsoil.*

Additionally, as discussed in the EIR Initial Study (EIR Appendix A), under certain geology and soils topics, the Project would have no impact, or impacts would be less-than-significant. On this basis, the following topics are not further discussed here:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault;*
- Directly or indirectly cause potential substantial adverse effects, including the risk of loss,*

injury or death involving landslides;

- *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.*

As supported by the analysis presented in this Section, potential geology and soils impacts of the Project are determined to be less-than-significant with incorporation of proposed mitigation.

4.9.1 INTRODUCTION

This Section examines geologic characteristics and surface and subsurface soil conditions and evaluates potential related geology/soils impacts that would directly or indirectly result from the Project.

Geologic, soils, and geotechnical conditions affecting the subject site and Project are described and evaluated in: *Geotechnical Feasibility Study, Proposed Commercial/Industrial Development, NWC Vineyard Avenue and Merrill Avenue, Ontario, California* (Southern California Geotechnical) November 21, 2017; *Geotechnical Feasibility Study, Proposed Commercial/Industrial Development, NEC Grove Avenue and Merrill Avenue, Ontario, California* (Southern California Geotechnical) November 21, 2017; and *Geotechnical Investigation, Proposed Commercial/Industrial Development, NWC Merrill Avenue and Carpenter Avenue, Ontario, California* (Southern California Geotechnical) August 21, 2018; and *Geotechnical Investigation, Proposed Commercial/Industrial Development, 8643 Eucalyptus Avenue, Ontario, California* (Southern California Geotechnical) May 18, 2017. Within this Section, these reports are referred to collectively as the Project Geotechnical Studies.

The Project Geotechnical Studies conclude that the subject site is suitable for development of the Project, provided that recommendations of the Studies are implemented during Project design and construction. The Project Geotechnical Studies' conclusions and recommendations in total are incorporated by reference.

The discussions in this Section are summarized from The Policy Plan (General Plan) component of The Ontario Plan (TOP) and the Project Geotechnical Studies. The Project

Geotechnical Studies are provided at EIR Appendix J. As noted in the Project Geotechnical Studies, the Studies provide only analyses of geotechnical feasibility, and are not design level investigations. Prior to issuance of development permits, subsequent site - and development - specific studies would be required to refine the preliminary design parameters presented in the Project Geotechnical Studies.

4.9.2 SETTING

Following are summary discussions of the Project's geologic setting, prevalent site soils, geotechnical considerations, and seismic design considerations. Please refer also to the detailed discussions presented in the Project Geotechnical Studies.

4.9.2.1 Geologic and Seismic Setting

The Ontario Plan Draft EIR provides the following description of the City's geologic context:

"The City of Ontario is in the Upper Santa Ana River Valley, consisting of a series of coalescing alluvial fans formed by streams flowing out of the San Gabriel Mountains to the north. The Upper Valley has a gentle southerly slope of approximately 1 percent grade, such that elevations within the City of Ontario range from approximately 1,150 feet in the north to 640 feet in the south. The junction of the Upper Valley and the San Gabriel Mountains marks the boundary between two geomorphic provinces. The valley, including the City of Ontario, lies within the Peninsular Ranges geomorphic province, characterized by northwest-trending mountains and valleys and extending south into Mexico. The San Gabriel Mountains are part of the Transverse Ranges province, a set of east-west-trending mountain ranges extending from Santa Barbara County on the west to San Bernardino and Riverside Counties on the east. The San Gabriel Mountains north of Ontario rise as high as 10,064 feet at Mount San Antonio."¹

¹ The Ontario Plan Draft EIR, p. 5.7-1.

The City of Ontario (City) is located within a seismically active portion of Southern California. The Ontario Plan EIR at Figure 5.7-2 (reproduced here as Figure 4.9-1) identifies active and/or potentially active fault zones in the region. No active or potentially active faults are located in the City.

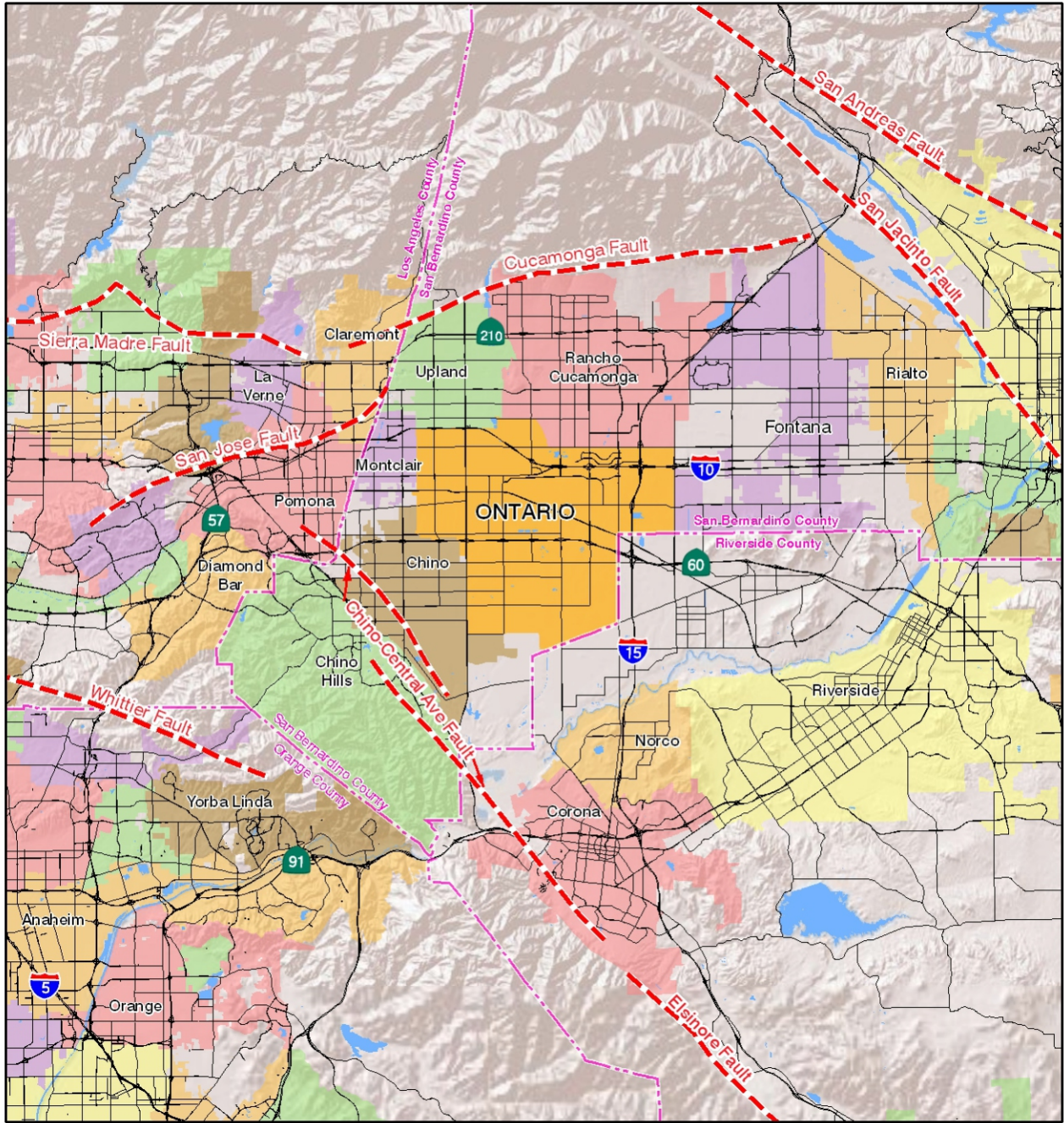
4.9.2.2 Existing Site Conditions

Topography

The Project site topography evidences little internal difference, with a general northeast to southwest downward trending slope. Elevations within the Project site range from approximately 686 feet above mean sea level (amsl) at the northeast corner of the Project site, to approximately 651 feet amsl at the southwest corner of the Project site – an elevation difference of approximately 35 feet over approximately 1.3 miles with average internal slopes ranging between +2.3 % to -2.6% (Google Earth Imagery 2018).

Subsurface Conditions

Subsurface conditions generally affecting the Project site are summarized below. The conditions described here are summarized from information provided in the various Project Geotechnical Studies under the Studies' heading *Subsurface Exploration*. Information provided is representative of conditions encountered throughout the Project site, though site- and parcel-specific subsurface conditions may evidence certain variations from the conditions noted.



NOT TO SCALE

Source: The Ontario Plan Draft EIR (The Planning Center)

Figure 4.9-1
Regional Faults

Pavement and Surface Improvements

Pavements and surface improvements are evident in the easterly portion of the Project site, adjacent to Carpenter Avenue. This portion of the Project site currently accommodates trucking operations. Observed surface improvements included asphaltic concrete pavements of 3± inches and underling aggregate base ranging from 3 to 7± inches.

Manure

Manure is present in various areas of the Project site at thicknesses ranging from of 3± inches to 3± feet below ground surface (bgs).

Alluvium

Native alluvial soils were encountered during subsurface explorations and extended to depths of up to 30± feet bgs. The near surface alluvium generally comprises loose to very dense silty fine sands, loose to medium dense fine sands, fine sandy silts, fine to coarse sands, and silty fine sands. Encountered alluvium also evidenced stiff to very stiff clayey silts to silty clays and fine sandy clays.

Artificial Fill

Artificial fill soils were also encountered during subsurface explorations, and extended to depths of up to 30± feet bgs. Artificial fill soils composition varied throughout the Project site and comprised loose to medium dense silty fine sands, fine sandy silts, silty clay nodules, medium sand, fine gravel, dense fine sand, silty sands to sandy silts, clayey fine to medium sands, and very stiff silty clay. Artificial fill soils also contained minor debris, such as plastic, glass, and brick fragments.

Groundwater

Free groundwater was not encountered during site subsurface explorations. Based on this, and the nominal moisture content of recovered soil samples, static groundwater (if present) is assumed to exist at depths in excess of 30± feet bgs. As confirmation of this assumption, available regional groundwater depth data was reviewed as part of the Project Geotechnical Studies. Data obtained from proximate monitoring wells, located

within a one-mile radius of the Project site, indicate a high groundwater levels of ranging from 62 to 131 ± feet bgs.

4.9.3 Seismic Design Considerations

The Project site and Southern California generally are subject to strong ground motions due to earthquakes with resulting damage to structures. However, it is not generally considered reasonable or feasible to design a structure that is entirely resistant to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. Proposed structures should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life. The conditions described are summarized from information provided in the various Project Geotechnical Studies under the Studies' heading *Seismic Design Considerations*.

4.9.3.1 Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Furthermore, no evidence of faulting was identified during the geotechnical investigation. Therefore, the possibility of significant fault rupture on the site is considered to be low. The potential for other geologic hazards such as seismically induced settlement, lateral spreading, tsunamis, inundation, seiches, flooding, and subsidence affecting the site is considered low.

4.9.3.2 Seismic Design Parameters

The California Building Code (CBC) provides earthquake design criteria and seismic design coefficients (CBC Seismic Design Parameters) that would be applicable to all development within the Project site. Preliminary Seismic CBC Seismic Design Parameters are presented in the Project Geotechnical Studies.

The CBC Seismic Design Parameters are based on area soils profiles and proximity of known faults. Within the context of the CBC Seismic Design Parameters, seismic design(s) for the Project structures need to consider on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. As part of the

Project building design processes, it will be the purview of the Project geotechnical engineer and design team to identify appropriate CBC Seismic Design Parameters to be employed within the Project site.

4.9.3.3 Liquefaction

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. Factors influencing the potential for liquefaction include groundwater table elevation, soil type and plasticity characteristics, relative soil density, initial confining pressure, and intensity and duration of ground shaking. Generally, liquefaction occurring at depths of up to 50 feet bgs may impact surface improvements. Liquefaction potential is greater in saturated, loose, or poorly graded fine sands. Non-sensitive clayey (cohesive) soils are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table. The Ontario Plan EIR notes that “[f]ine sand and silty sand, the types of sediments most often associated with liquefaction, occur mainly in the New Model Colony in the southernmost portion of the City (Ontario Plan EIR, p. 5.7-10). The Project site lies in this area.

The California Geological Survey (CGS) has not yet conducted detailed seismic hazards mapping in the area of the Project site. The general liquefaction susceptibility of the Project site was attempted to be determined by research of the San Bernardino County Land Use Plan, General Plan, Geologic Hazard Overlay. No geologic hazard overlay was available for the Corona North Quadrangle (the Project site location) at the time of preparation of the Project Geotechnical Studies. The San Bernardino County Land Use Services states however that “if a particular community is not listed, there are no geologic hazards in the area.”² On this basis, the subject site is not considered to lie within a geologic hazard zone, including a potential liquefaction zone. Furthermore, available groundwater data within a two-mile radius from the site indicates a high groundwater levels of 62 to 131 ± feet bgs. Based on the subsurface conditions encountered during site

² County of San Bernardino > Home. Accessed March 13, 2019.
<http://cms.sbcounty.gov/lus/Planning/ZoningOverlayMaps.aspx>.

exploratory activities, and the lack of groundwater within 50± feet of the ground surface, liquefaction is not considered to be a design concern for the Project.

4.9.4 Geotechnical Design Considerations

The Project site is generally underlain by alluvium and surficial fill soils, extending to depths of up to 30± feet. Fill soils are undocumented and vary widely in strength and composition, and most samples include varying amounts of debris including plastic and metal. Surface and near-surface soils also exhibit manure and organic content at various concentrations and depths. The existing undocumented fill and near-surface soils possess variable strengths and variable consolidation characteristics.

4.9.5 GEOLOGY/SOILS/SEISMIC POLICIES AND REGULATIONS

Following are summary descriptions of geology/soils/seismic policies and regulations applicable to the Project. In many instances, compliance with existing policies and regulations eliminates, or substantially reduces, potential environmental effects.

4.9.5.1 City of Ontario Policy Plan (Policy Plan)

The Policy Plan, Safety Element Section S1, *Seismic and Geologic Hazards* establishes City-wide Goals and Policies that act to minimize potential structural damage and injury or loss of life due to earthquakes, other seismic, or adverse geologic/soils/slopes conditions.

4.9.5.2 City of Ontario Geotechnical/Seismic Design Review Processes

The City Planning, Building and Safety, and Engineering Departments implement General Plan Goals and Policies addressing geology, soils, and seismic conditions through established development permit review processes. To these ends, City staff ensures that site and development-specific geotechnical investigations are completed where appropriate, and that requirements and recommendations of these investigations are incorporated in construction plans, are followed through during construction processes, and are functionally complete before buildings are occupied and/or infrastructure systems or other improvements are accepted. In all instances, the City ensures that, at a minimum, applicable provisions of the California Building Code (CBC) are incorporated throughout development design and implementation.

4.9.6 STANDARDS OF SIGNIFICANCE

Appendix G of the California Environmental Quality Act (CEQA) Guidelines indicates a Project will have a potentially significant geology and soils impact if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

4.9.7 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.9.7.1 Introduction

The following discussions focus on topical areas and issues where it has been determined pursuant to the EIR Initial Study/NOP processes, that the Project may result in or cause potentially significant geology or soils impacts. As substantiated in the Initial Study (EIR Appendix A), under the following topics, the Project was determined to have no impact or impacts would be less-than-significant. On this basis, the following topics are not further discussed here:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault;
- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving landslides; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

All other CEQA topics concerning the Project's potential agricultural resources impacts are discussed below. Please refer also to Initial Study Checklist Item VII. *Geology and Soils*.

4.9.7.2 Impact Statements

Potential Impact: *Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking; directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction; or be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Impact Analysis: The Project does not propose uses or activities that would indirectly contribute to or cause seismic or geotechnical hazards. Impacts in these regards would be less-than-significant. Based on field explorations, laboratory testing, and geotechnical analysis, the Project Geotechnical Studies conclude that the Project development concept is considered feasible from a geotechnical standpoint. However, certain potentially adverse geotechnical/soils conditions currently affect the Project site. These conditions are summarized below.

Settlement

The Project site contains undocumented fill and alluvium that could be subject to settlement. Remedial grading will remove the existing undocumented fill soils as well as a portion of the near-surface native alluvium, and replace these materials as compacted structural fill. The native soils that will remain in place below the recommended depth of over-excavation will not be subject to significant load increases from the foundations of the new structures. Provided that the recommended remedial grading is completed, the post-construction static settlements of the proposed structures are expected to be within tolerable limits.

Soluble Sulfates

The Project Geotechnical Studies substantiate that soluble sulfate concentrations of soils within the Project site are negligible. Specialized sulfate protection concrete mix designs are therefore not considered to be necessary. To verify the soluble sulfate concentrations of the soils which are present at the proposed building pad grades, it is however recommended that additional soluble sulfate testing be conducted during the design-level geotechnical investigations and at the completion of rough grading.

Expansion

Laboratory testing of near-surface soils indicates that these materials have a very low expansion potential. Based on these test results, no design considerations related to expansive soils are considered warranted for this site. It is however recommended that additional expansion index testing be conducted during design-level geotechnical investigation and at the completion of rough grading to verify the expansion potential of the as-graded building pads.

Organic Content

Portions of the Project site evidence surface and near-surface manure. It is recommended that all manure and any organic topsoil be removed during site stripping. Any additional organic materials may be encountered in buried fills. These buried materials should also be removed and segregated during grading. Any necessary excavation and export of organic material would be accomplished as part of general site preparation activities.

It is feasible to use some of the surface and near-surface soils, absent manure and organic topsoil, provided that these soils are cleaned of all apparent vegetation or highly organic material and thoroughly blended with inorganic soils from greater depths at the Project site. Based on similar development proposals in the vicinity of the Project site, a final mixture containing less than 3 percent organic content would be acceptable. It is recommended that additional organic testing be conducted during design-level geotechnical investigations and at the completion of rough grading of the building pads in order to verify that the organic contents of the blended on-site soils are within the acceptable limits.

Shrinkage/Subsidence

Removal and re-compaction of the near-surface native fill soils would result in soil shrinkage. Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. Soil shrinkage and soil settlement factors would be variable and be dependent on the soils encountered, types of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess until such time as precise plans and construction methodologies are identified.

Corrosion Potential

Certain portions of the Project site have historically or are currently used for dairy farming activities. These portions of the Project site evidence soils with potentially corrosive chloride and nitrate concentrations that could affect common building materials. Some of the soils also possess very low electrical resistivity, which also indicates potential for the on-site soils to be corrosive to metallic improvements. The Soil Corrosion Study Report (Appendix F to *Geotechnical Investigation, Proposed Commercial/Industrial Development, 8643 Eucalyptus Avenue, Ontario, California*) contains a more detailed interpretation of the test results along with recommendations for the protection of new improvements that could be exposed to potentially corrosive conditions.

Project implementation within the context of the above conditions could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or

death involving strong seismic ground shaking; directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction; or be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. These are potentially significant impacts.

Level of Significance: Potentially Significant.

Mitigation Measures: As means of addressing potentially adverse geotechnical and soils conditions affecting the Project site, the Project Geotechnical Studies provide a range of *Site Preparation Recommendations, Foundation Design Recommendations, Floor Slab Design Recommendations, and Pavement Design Recommendations* (collectively, “Design Recommendations” – please refer to the Project Geotechnical Studies’ Section 1.0, *Executive Summary*). The Project Geotechnical Studies also provide *Grading Guide Specifications* to be followed during grading operations (please refer to the Project Geotechnical Studies’ Appendix D). Grading Guide Specifications applicable to all properties are presented subsequently. Recommendations for each of the subject properties evaluated in the various Project geotechnical studies are presented below.

Minaberry Property Design Recommendations

- Demolition of the existing structures, including the residence, milking barn, sheds, ponds, canopy shelters, and the existing pavements will be required in order to facilitate construction of the new buildings. Demolition of these structures should include all foundations, floor slabs, utilities, septic systems, and any other subsurface improvements that will not remain in place for use with the new development. Debris resultant from demolition should be disposed of offsite. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2 inch particle size, well mixed with the on-site soils, and incorporated into new structural fills or it may be crushed and made into crushed miscellaneous base (CMB).

- Site stripping of any existing vegetated areas should include all vegetation, organic soils, and root masses. These materials should be disposed of offsite. Site stripping should also include removal of all manure and any topsoil. These materials should also be disposed of off-site.
- Remedial grading will be necessary in order to support the proposed structures on conventional shallow foundation systems.
- Remedial grading is recommended within the proposed building areas, to remove the existing manure, organic topsoil, as well as the upper portion of the alluvial soils, and replace them as structural compacted fill.
- Overexcavation is recommended within the building areas to extend to a depth of at least 3 to 4 feet below existing and proposed building pad subgrade elevations. The overexcavation should also extend to a depth of at least 2 to 3 feet below bearing grade within the influence zones of any new foundations.
- Parking area subgrade soils should be scarified to a depth of 12± inches, thoroughly moisture conditioned to within 0 to 4 percent above the optimum moisture content, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Preliminary Foundation Design Recommendations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 to 3,000 lbs/ft² maximum allowable soil bearing pressure.
- The design of the foundations will depend in large part on the results of the future design-level geotechnical study(ies). Minimum reinforcement consisting of two (2) to four (4) No. 5 rebars in strip footings is recommended. Additional reinforcement may be necessary for structural considerations.

Preliminary Floor Slab Design Recommendations

- Conventional slab-on-grade, minimum 6 to 7 inches thick.
- The design of the floor slabs will depend in large part on the results of the future design-level geotechnical study(ies). The actual thickness and reinforcement of the floor slabs should be determined by the structural engineer.

Preliminary Pavement Design Recommendations

| Asphalt Pavements (R = 40) | | | | | |
|---|---|---------------|----------|----------|----------|
| Materials | Thickness (inches) | | | | |
| | Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0) | Truck Traffic | | | |
| | | TI = 6.0 | TI = 7.0 | TI = 8.0 | TI = 9.0 |
| Asphalt Concrete | 3 | 3½ | 4 | 5 | 5½ |
| Aggregate Base | 4 | 6 | 7 | 8 | 10 |
| Compacted Subgrade | 12 | 12 | 12 | 12 | 12 |
| Portland Cement Concrete Pavements | | | | | |
| Materials | Thickness (inches) | | | | |
| | Autos and Light Truck Traffic (TI = 6.0) | Truck Traffic | | | |
| | | TI = 7.0 | TI = 8.0 | TI = 9.0 | |
| PCC | 5 | 5½ | 6½ | 8 | |
| Compacted Subgrade (95% minimum compaction) | 12 | 12 | 12 | 12 | |

Lanting-Alewyn Property Design Recommendations

- Demolition of the existing structures, including the residences, milking barn, sheds, canopy shelters, and the existing pavements will be required in order to facilitate construction of the new buildings. Demolition of these structures should include all foundations, floor slabs, utilities, septic systems, and any other subsurface improvements that will not remain in place for use with the new development. Debris resultant from demolition should be disposed of offsite. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2-inch particle size, well mixed with the on-site soils, and incorporated into new structural fills or it may be processed into crushed miscellaneous base (CMB).
- Site stripping should include all vegetation, organic soils, and root masses. These materials should be disposed of offsite. Site stripping should also include removal of all manure and any significant topsoil. These materials should also be disposed of off-site.
- Remedial grading is recommended to remove a portion of the near-surface alluvium from the proposed building pad areas. Any artificial fill soils and any

soils disturbed during the demolition of the dairy farm structures should be removed from the building areas in their entirety.

- Remedial grading should be performed within the proposed building areas to remove a portion of the near-surface alluvium, any artificial fill, and any disturbed soils. The near surface soils should be overexcavated to a depth of at least 3 feet below existing site grades and to a depth of at least 3 feet below the proposed building pad subgrade elevations. Within the influence zones of new foundations, the overexcavation should extend to a depth of at least 3 feet below the proposed foundation bearing grade.
- After the overexcavation has been completed, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be removed. Resulting subgrade should then be scarified to a depth of at least 12 inches and moisture conditioned to 0 to 4 percent above optimum. The previously excavated soils may then be replaced as compacted structural fill. All structural fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.
- The new pavement subgrade soils are recommended to be scarified to a depth of 12± inches, thoroughly moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Foundation Design Recommendations

- Conventional shallow foundations, supported in newly placed compacted fill.
- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft².
- Reinforcement consisting of four (4) No. 5 rebars in strip footings. Additional reinforcement may be necessary for structural considerations.

Floor Slab Design Recommendations

- Conventional Slabs-on-Grade, minimum 6 inches thick.
- Modulus of Subgrade Reaction: $k = 125$ psi/in.
- Slab reinforcement is not required based on geotechnical conditions. The actual thickness and reinforcement of the floor slabs should be determined by the structural engineer based on the imposed loading.

Pavement Design Recommendations

| Asphalt Pavements (R = 40) | | | | | |
|---|---|---------------|----------|----------|----------|
| Materials | Thickness (inches) | | | | |
| | Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0) | Truck Traffic | | | |
| | | TI = 6.0 | TI = 7.0 | TI = 8.0 | TI = 9.0 |
| Asphalt Concrete | 3 | 3½ | 4 | 5 | 5½ |
| Aggregate Base | 4 | 6 | 7 | 8 | 10 |
| Compacted Subgrade | 12 | 12 | 12 | 12 | 12 |
| Portland Cement Concrete Pavements | | | | | |
| Materials | Thickness (inches) | | | | |
| | Autos and Light Truck Traffic (TI = 6.0) | Truck Traffic | | | |
| | | TI = 7.0 | TI = 8.0 | TI = 9.0 | |
| PCC | 5 | 6½ | 8 | 9 | |
| Compacted Subgrade (95% minimum compaction) | 12 | 12 | 12 | 12 | |

Liberty Property Design Recommendations

- Demolition of the existing structures, including the residence, milking barn, sheds, canopy shelters, and the existing pavements will be required in order to facilitate construction of the new buildings. Demolition of these structures should include all foundations, floor slabs, utilities, septic systems, and any other subsurface improvements that will not remain in place for use with the new development. Debris resultant from demolition should be disposed of offsite. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2 inch particle size, well mixed with the on-site soils, and incorporated into new structural fills or it may be crushed and made into crushed miscellaneous base (CMB).
- Site stripping should include all vegetation, organic soils, and root masses. These materials should be disposed of offsite. Site stripping should also include removal of all manure and any significant topsoil. These materials should also be disposed of off-site.

- Remedial grading is recommended to remove a portion of the near surface alluvium from the proposed building pad area. Any artificial fill soils and any soils disturbed during the demolition of the dairy farm structures should be removed from the building areas in their entirety.
- Remedial grading should be performed within the proposed building areas to remove a portion of the near surface alluvium, any artificial fill, and any disturbed soils. The near surface soils should be overexcavated to a depth of at least 3 feet below existing site grades and to a depth of at least 3 feet below the proposed building pad subgrade elevations. Within the influence zones of new foundations, the overexcavation should extend to a depth of at least 2 feet below the proposed foundation bearing grade.
- After the overexcavation has been completed, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be removed. Resulting subgrade should then be scarified to a depth of at least 12 inches and moisture conditioned to 2 to 4 percent above optimum. The previously excavated soils may then be replaced as compacted structural fill. All structural fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.
- The new pavement subgrade soils should be scarified to a depth of 12± inches, thoroughly moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Foundation Design Recommendations

- Conventional shallow foundations, supported in newly placed compacted fill.
- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft².
- Reinforcement consisting of four (4) No. 5 rebars in strip footings. Additional reinforcement may be necessary for structural considerations.

Floor Slab Design Recommendations

- Conventional Slabs-on-Grade, minimum 6 inches thick.
- Modulus of Subgrade Reaction: $k = 125$ psi/in.

- Slab reinforcement is not required based on geotechnical conditions. The actual thickness and reinforcement of the floor slabs should be determined by the structural engineer based on the imposed loading.

Pavement Design Recommendations

| Asphalt Pavements (R = 40) | | | | | |
|---|---|---------------|----------|----------|----------|
| Materials | Thickness (inches) | | | | |
| | Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0) | Truck Traffic | | | |
| | | TI = 6.0 | TI = 7.0 | TI = 8.0 | TI = 9.0 |
| Asphalt Concrete | 3 | 3½ | 4 | 5 | 5½ |
| Aggregate Base | 4 | 6 | 7 | 8 | 10 |
| Compacted Subgrade | 12 | 12 | 12 | 12 | 12 |
| Portland Cement Concrete Pavements | | | | | |
| Materials | Thickness (inches) | | | | |
| | Autos and Light Truck Traffic (TI = 6.0) | Truck Traffic | | | |
| | | TI = 7.0 | TI = 8.0 | TI = 9.0 | |
| PCC | 5 | 6½ | 8 | 9 | |
| Compacted Subgrade (95% minimum compaction) | 12 | 12 | 12 | 12 | |

Borba Property Design Recommendations

- Demolition of the existing structures, including the residence, milking barn, sheds, ponds, canopy shelters, and the existing pavements will be required in order to facilitate construction of the new buildings. Demolition of these structures should include all foundations, floor slabs, utilities, septic systems, and any other subsurface improvements that will not remain in place for use with the new development. Debris resultant from demolition should be disposed of offsite. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2 inch particle size, well mixed with the on-site soils, and incorporated into new structural fills or it may be crushed and made into crushed miscellaneous base (CMB).

- Site stripping of any existing vegetated areas should include all vegetation, organic soils, and root masses. These materials should be disposed of offsite. Site stripping should also include removal of all manure and any topsoil. These materials should also be disposed of off-site.
- Existing undocumented fill soils were encountered at one of our boring locations and three of our trench locations, extending to depths of up to 2½± feet.
- The proposed development is considered to be feasible with respect to the geotechnical conditions encountered at the boring and trench locations at the site. However, remedial grading will be necessary in order to support the proposed structures on conventional shallow foundation systems. Preliminary remedial grading and foundation design recommendations have been provided herein, based on the preliminary site plan, assumed site grading, and assumed foundation loads.
- Based on these preliminary assumptions and the results of our subsurface exploration, laboratory testing, and engineering analysis, remedial grading should be performed within the proposed building areas, to remove the existing manure, organic topsoil, undocumented fill soils, as well as the upper portion of the alluvial soils, and replace them as structural compacted fill.
- Preliminarily, the overexcavation within the building area is also recommended to extend to a depth of at least 4 to 5 feet below existing and proposed building pad subgrade elevations. The overexcavation should also extend to a depth of at least 2 to 3 feet below bearing grade within the influence zones of any new foundations. These recommendations are subject to review and may be revised based on the results of the design-level geotechnical investigation.
- Preliminarily, the new parking area subgrade soils are recommended to be scarified to a depth of 12± inches, thoroughly moisture conditioned to within 0 to 4 percent above the optimum moisture content and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Preliminary Foundation Design Recommendations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 to 3,000 lbs/ft² maximum allowable soil bearing pressure.

- The design of the foundations will depend in large part on the results of the future design- level geotechnical study. Minimum reinforcement consisting of two (2) to four (4) No. 5 rebars in strip footings. Additional reinforcement may be necessary for structural considerations.

Preliminary Floor Slab Design Recommendations

- Conventional slab-on-grade, minimum 6 to 7 inches thick.
- The design of the floor slabs will depend in large part on the results of the future design-level geotechnical study. The actual thickness and reinforcement of the floor slabs should be determined by the structural engineer.

Pavement Design Recommendations

| Asphalt Pavements (R = 40) | | | | | |
|---|---|---------------|----------|----------|----------|
| Materials | Thickness (inches) | | | | |
| | Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0) | Truck Traffic | | | |
| | | TI = 6.0 | TI = 7.0 | TI = 8.0 | TI = 9.0 |
| Asphalt Concrete | 3 | 3½ | 4 | 5 | 5½ |
| Aggregate Base | 4 | 6 | 7 | 8 | 10 |
| Compacted Subgrade | 12 | 12 | 12 | 12 | 12 |
| Portland Cement Concrete Pavements | | | | | |
| Materials | Thickness (inches) | | | | |
| | Autos and Light Truck Traffic (TI = 6.0) | Truck Traffic | | | |
| | | TI = 7.0 | TI = 8.0 | TI = 9.0 | |
| PCC | 5 | 5½ | 6½ | 8 | |
| Compacted Subgrade (95% minimum compaction) | 12 | 12 | 12 | 12 | |

Grading Guide Specifications (All Properties)

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the Project Geotechnical Studies. Should the recommendations in the geotechnical

investigation report conflict with the grading guide specifications, the more site-specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.
- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.
- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.
- The Earthwork Contractor is required to have suitable and sufficient equipment on the job- site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.
- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.
- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.
- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.
- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.
- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.
- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted.
- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as “contaminated,” and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.
- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.
- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:
- Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.
- Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.
- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.
- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.
- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.
- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.
- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.
- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.
- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.
- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.
- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.
- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.
- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core.
- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving

and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.
- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).
- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.
- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D- 2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.
- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.
- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.
- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

Corrosion Protection/Prevention

Steel Pipe

Implement *all* the following measures:

1. Underground steel pipe with rubber gasketed, mechanical, grooved end, or other nonconductive type joints should be bonded for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.
2. Install corrosion monitoring test stations to facilitate corrosion monitoring and the application of cathodic protection:
 - a. At each end of the pipeline.
 - b. At each end of all casings.
 - c. Other locations as necessary so the interval between test stations does not exceed 1,200 feet.
3. To prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection, electrically isolate each buried steel pipeline per NACE SP0286 from:
 - a. Dissimilar metals.
 - b. Dissimilarly coated piping (cement-mortar vs. dielectric).
 - c. Above ground steel pipe.
 - d. All existing piping.
4. Implement the following:
 - a. Apply a suitable dielectric coating intended for underground use such as:
 - i. Polyurethane per AWWA C222 or
 - ii. Extruded polyethylene per AWWA C215 or
 - iii. A tape coating system per AWWA C214 or
 - iv. Hot applied coal tar enamel per AWWA C203 or
 - v. Fusion bonded epoxy per AWWA C213.
 - b. Apply cathodic protection to steel piping as per NACE SP0169.

Iron Pipe

Implement *all* the following measures:

1. To prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection, electrically insulate underground iron pipe from dissimilar metals and from above ground iron pipe with insulating joints per NACE SP0286.
2. Bond all nonconductive type joints for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.
3. Install corrosion monitoring test stations to facilitate corrosion monitoring and the application of cathodic protection:
 - a. At each end of the pipeline.
 - b. At each end of any casings.
 - c. Other locations as necessary so the interval between test stations does not exceed 1,200 feet.
4. Implement the following:
 - a. Apply a suitable coating intended for underground use such as:
 - i. Polyethylene encasement per AWWA C105; or
 - ii. Epoxy coating; or
 - iii. Polyurethane; or
 - iv. Wax tape.
 - b. Apply cathodic protection to cast and ductile iron piping as per NACE SP0169.

Copper Tubing

Implement *all* the following measures:

1. Electrically insulate underground copper pipe from dissimilar metals and from above ground copper pipe with insulating devices per NACE SP0286.
2. Electrically insulate cold water piping from hot water piping systems.
3. Protect buried copper tubing by one of the following measures:

- a. Prevention of soil contact. Soil contact may be prevented by placing the tubing above ground or encasing the tubing using PVC pipe with solvent- welded joints.
- b. Installation of a factory-coated copper pipe with a minimum 25-mil thickness such as Kamco's Aqua Shield™, Mueller's Streamline Protec™, or equal. The coating must be continuous with no cuts or defects.
- c. Installation of 12-mil polyethylene pipe wrapping tape with butyl rubber mastic over a suitable primer. Protect wrapped copper tubing by applying cathodic protection per NACE SP0169.

Plastic and Vitrified Clay Pipe

1. No special precautions are required for plastic and vitrified clay piping placed underground from a corrosion viewpoint.
2. Protect all metallic fittings and valves with wax tape per AWWA C217 or epoxy.

All Pipe

1. On all pipes, appurtenances, and fittings not protected by cathodic protection, coat bare metal such as valves, bolts, flange joints, joint harnesses, and flexible couplings with wax tape per AWWA C217 after assembly.
2. Where metallic pipelines penetrate concrete structures such as building floors, vault walls, and thrust blocks use plastic sleeves, rubber seals, or other dielectric material to prevent pipe contact with the concrete and reinforcing steel.

Concrete Structures and Pipe

1. From a corrosion standpoint, any type of ASTM C150 cement may be used for concrete structures and pipe because the sulfate concentration is negligible, from 0 to 0.10 percent.
2. Chloride concentrations were measured at levels⁷ where additional protective measures are required for concrete. Protect steel and iron embedded in concrete

structures and pipe from chloride attack. This applies to such items as reinforcing steel and anchor bolts but not post-tensioning strands and anchors, which have separate requirements. The protection could be one or a combination of the following:

- a. Protective Concrete - A concrete mix designed to protect embedded steel and iron should be based on the following parameters: 1) a chloride content of 1,000 ppm in the soil; 2) the desired service life; the design 3) concrete cover; and 4) the applicable building code. A protective concrete mix may include a corrosion inhibitor admixture and/or supplementary cementitious materials.
- b. Waterproof Concrete - Waterproofing for concrete could be a gravel capillary break under the concrete, a waterproof membrane such as Grace PrePrufe products, and/or a liquid applied waterproof barrier coating. Visqueen, similar rolled barriers, or bentonite-based membranes are not viable waterproofing systems, from a corrosion standpoint.
- c. Coat Embedded Metal - A coating for embedded steel and iron could be an epoxy coating applied to the metal. Purple fusion bonded epoxy (FBE) (ASTM A934) intended for prefabricated reinforcing steel reinforcing steel is suitable. Any damage to the coating must be repaired in accordance with the manufacturer's specifications prior to installation. The green flexible FBE (ASTM A775) is not recommended.
- d. Cathodic Protection - Cathodic protection is most practical for pipelines and must be designed for each application. The amount of cathodic protection current needed can be minimized by coating the steel or iron.

Grading and Foundation Plan Review

The Recommendations and Grading Specifications of the Project Geotechnical Studies as summarized above are incorporated here as Mitigation Measure 4.9.1.

4.9.1 Design and development of the Project shall comply with recommendations, specifications and performance standards identified within the Project Geotechnical Studies, to include preparation of and conformance with design-level geotechnical studies for individual

development proposals within the Project site. Where the Project Geotechnical Studies and design-level geotechnical studies are silent, requirements of the California Building Code as adopted and implemented by the City shall prevail.

Level of Significance After Mitigation: Less-Than-Significant. The Project Geotechnical Studies conclude that the Project site is acceptable for the proposed development, contingent on compliance with Recommendations and Grading Specifications as identified in the Studies.

Through established Site Plan, Building Permit, and Certificate of Occupancy requirements, the City would verify that required design and construction measures are incorporated throughout Project development and are implemented in the completed structures and facilities. Accordingly, it is anticipated that any site-specific constraints which may be encountered during the course of Project implementation can be successfully addressed within the context of the findings and recommendations of the Project Geotechnical Studies, subsequent design-level geotechnical studies, and existing City/CBC seismic design regulations, standards, and policies.

As supported by the preceding discussions, with incorporation of mitigation, the potential for the Project to: directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking; directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction; or be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse is considered less-than-significant.

Potential Impact: *Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), thereby creating substantial direct or indirect risks to life or property?*

Impact Analysis: The CBC provides methodologies and guidelines for identification of expansive soils and establishes design standards which act to avoid potentially adverse effects of expansive soils on facilities. Section 1802.3 of the 2010 California Building Code directs expansive soil tendency be graded by its Expansion Index. A soil's Expansion Index is defined by its potential to swell when wet or saturated. The CBC mandates that "special [foundation] design consideration" be employed if the Expansion Index is 20, or greater.

Unmitigated effects of expansive or otherwise unstable soils may adversely affect roadway subgrades, concrete slabs-on-grade, and building foundations. In the event of a severe earthquake in the vicinity of the Project, structural foundations and floors may be damaged if constructed in, or over, expansive or unstable soils.

As discussed in the Project Geotechnical Studies, excluding undocumented fill and organic materials (all of which would be removed during required remedial grading), and near-surface soils within the Project site possess very low expansion potentials. The Project does not propose uses or activities that would indirectly contribute to or cause soil expansion hazards.

It is also noted that design-level geotechnical studies would be required to verify all findings and conclusions of the Project Geotechnical Studies. The Project would be required to comply with all recommendations, specifications, and performance standards presented within the design-level geotechnical studies.

As supported by the preceding discussion, the potential for the Project to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), thereby creating substantial direct or indirect risks to life or property is considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Would the Project result in substantial soil erosion or the loss of topsoil?*

Impact Analysis: Under existing conditions, the Project site comprises agricultural uses and various developed or partially improved properties that are susceptible to erosion and soil loss. Project construction activities would temporarily expose underlying soils, thereby increasing their susceptibility to erosion. Potential erosion impacts incurred during construction activities are mitigated below the level of significance through the Project's mandated compliance with a City-approved Storm Water Pollution Prevention Plan (SWPPP), as well as compliance with SCAQMD Rules that prohibit grading activities and site disturbance during high wind events. At Project completion, potential soil erosion impacts in the area will be resolved, as pavement, roads, buildings, and landscaping are established, overcovering previously exposed soils.

Under the developed state, the Project surface improvements, landscaping, and stormwater management systems that would collectively act to minimize or avoid soil erosion. The Project does not propose to significantly alter existing topography in a manner that would result in substantial soil erosion or the loss of topsoil. All Project development plans would be subject to review and approval by the City. As part of this review, the City would ensure that permanent slopes and slope protection would conform to City requirements, thereby minimizing the potential for soil erosion over the life of the Project. City review and approval of development plans would also ensure that stormwater management systems are incorporated that would minimize potential erosion from stormwater runoff, both on-site and off-site.

As means of reducing or avoiding water quality impacts, including but not limited to impacts attributable to soil erosion or the loss of topsoil, the City requires development and implementation a Water Quality Management Plan (WQMP) for new development proposals. A Preliminary WQMP (PWQMP) has been prepared for the Specific Plan Area (please refer to EIR Appendix H). The City has reviewed and approved the PQWMP, and has determined it adequate at the current Specific Plan concept level of detail.

Additional requirements established by the City of Ontario Standard Conditions of Approval (below) act to avoid or minimize potential water quality impacts, including potential soil erosion impacts. In this regard, development proposals within the Specific Plan Area would be required to comply with the following Conditions:

- Standard Condition (SC) 3.66: A hydrology study and drainage analysis, prepared in accordance with the San Bernardino County Hydrology Manual and the City of Ontario's Standards and Guidelines, and signed by a Civil Engineer registered in the State of California, shall be submitted to the Engineering Department prior to Grading Plan approval. Additional drainage facilities may be required as a result of the findings of the study.
- SC 3.68: Prior to Grading Plan approval and the issuance of a grading permit, an Erosion and Sediment Control Plan shall be submitted to, and approved by, the Engineering Department. The Erosion and Sediment Control Plan shall identify the Best Management Practices (BMPs) that will be implemented by the Project during construction in order to reduce the discharge of sediment and other pollutants into the City's storm drain system.
- SC 3.69: Prior to Grading Plan approval and the issuance of a grading permit, a completed Water Quality Management Plan (WQMP) shall be submitted to, and approved by, the Engineering Department. The WQMP shall be submitted using the San Bernardino County Stormwater Program's model template and shall identify all Post Construction, Site Design, Source Control, and Treatment Control Best Management Practices (BMPs), that will be incorporated into the Project, in order to minimize any potential adverse impacts to receiving waters.³

³City of Ontario. "Standard Conditions of Approval for New Development, Applicable to 'Ontario Ranch'" pp. 13, 14. *City of Ontario, California*. www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Documents/20170418-standard_conditions_for_new_development.pdf. Accessed 13 Nov. 2019.

The measures and requirements outlined above would collectively act to avoid or minimize potential water quality impacts, including soil erosion impacts. Moreover, these measures and requirements as implemented under the Project would improve stormwater quality discharges when compared to untreated and/or contaminated discharges originating from by the site's various dairy farm and trucking uses, and uncontrolled/untreated discharges originating from the site generally.

Level of Significance: Less-Than-Significant.

4.10 CULTURAL/TRIBAL RESOURCES

4.10 CULTURAL/TRIBAL RESOURCES

Abstract

This Section examines the potential for implementation of the Project to impact cultural and tribal resources in the Project area. Of primary concern are the protection of potential historic cultural resources, and conservation of known or currently unknown (buried or undiscovered) archaeological resources that may be present within the Project site. Specifically, this analysis seeks to determine whether the Project would result in any of the following:

- *Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5;*
- *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;*
- *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
 - (i) *Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k), or*
 - (ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in*

subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

- *Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.*

Additionally, as discussed in the EIR Initial Study (EIR Appendix A), the Project's potential impacts under the following topic were previously determined to be less-than-significant, and are not further substantively discussed here:

- *Disturb any human remains, including those interred outside of formal cemeteries.*

Information contained within this section is summarized from: Cultural Resources Study for the Merrill Commerce Center Specific Plan Project, City of Ontario, San Bernardino County, California (Brian F. Smith and Associates, Inc.) August 27, 2019 (Project Cultural Resources Study); Proposed Merrill Commerce Center Specific Plan – Revised Historical Resource Survey (Urbana Preservation & Planning, LLC) April 28, 2020 (Project HRS). Analysis of the potential impacts of the proposed waterline along Chino Avenue between Grove Avenue and the Cucamonga Channel is based on information from: Cultural and Paleontological Resources Assessment, Ontario Ranch Commerce Center, City of Ontario, San Bernardino County, California (Material Culture Consulting) September 2018. Paleontological resources impacts are evaluated in: Paleontological Resource Assessment for the Proposed Merrill Commerce Center Specific Plan Project, City of Ontario, Southern San Bernardino County, California (Brian F. Smith and Associates, Inc.) April 1, 2020. All of these studies are included at EIR Appendix K.

Certain locally significant historical residences and dairy structures would be demolished as part of the Project. Even with application of mitigation, impacts to these resources is considered significant and unavoidable. With application of mitigation, potential impacts to other cultural resources, tribal resources, and paleontological resources would be less-than-significant as mitigated.

4.10.1 INTRODUCTION

Cultural resources can be of scientific, aesthetic, educational, archaeological, architectural, or historical significance to the community. The following section identifies and classifies the significance of cultural resources which may exist on the subject site, and assesses the Project's potential to impact such resources.

4.10.2 SETTING

The Project area is located on the 7.5-minute USGS Ontario, Prado Dam, and Corona North, California topographic quadrangles in the Santa Ana Del Chino Land Grant (Township 1 and 2 South, Range 7 West, projected. The following setting information has been summarized from the Project Cultural Resources Study.

Environmental Setting

The Merrill Commerce Center Specific Plan Project (Specific Plan, Project) is located in the Chino Basin. The Chino Basin and is located south of the San Gabriel Mountains, north of the Jurupa Mountains, and west of the San Bernardino Mountains. The Chino Basin is situated within the upper Santa Ana Valley and is a relatively flat alluvial plain formed from sediments deposited by the Santa Ana River and its tributaries, such as Chino Creek and Cucamonga Creek, within the Peninsular Ranges Geomorphic Province of southern California. The Peninsular Ranges are a series of northwest- to southeast-trending mountain ranges separated by similarly trending valleys, which make up the southernmost segment of a chain of North American Mesozoic batholiths that extend from Alaska to the southern tip of Baja California. Elevations within the Project site range between approximately 590 and 900 feet above mean sea level.

Geologically, the Project site is located on the distal margins of the broad alluvial floodplain of the ancestral Santa Ana River. The entire Project site is underlain by late Quaternary (middle Holocene) young sandy alluvial fan deposits, which overlie at shallow depths middle to late Quaternary (middle to late Pleistocene) very old sandy alluvial fan deposits. Late Pleistocene to early Holocene young sandy axial channel deposits also occur in nearby channels in the southernmost areas of the Project site and

late Pleistocene to early Holocene young alluvial fan deposits occur east of the northern off-site alignments.

During the prehistoric period, vegetation near the Project site provided sufficient food resources to support prehistoric human occupants. Animals that inhabited the area during prehistoric times included mammals such as rabbits, squirrels, gophers, mice, rats, deer, and coyotes, in addition to a variety of reptiles and amphibians. The natural setting of the area during the prehistoric occupation offered a rich nutritional resource base. Fresh water was likely obtainable from the Chino Creek, Cucamonga Creek, and the Santa Ana River. Historically, the property likely contained the same plant and animal species that are present today.

The Project site currently evidences dairy farm uses with interior unpaved roads, cattle stockades, support equipment for cattle and dairy farming, bio-retention basins located at the southern boundary, a trucking operation on the eastern portion, and appurtenant residences at various locations within the Project site. The site is extensively disturbed and evidences environmental degradation due to historic and on-going agricultural and trucking uses. Such degradation includes, but is not limited to:

- Animal waste from the long-term dairy farm uses have potentially created methane gas, and soil contamination from nitrates and ammonia.
- Numerous automotive fluids, including several large above ground storage tanks (ASTs) on or near the on-site maintenance shop. These materials are used for maintaining and repairing farm equipment.
- Additional ASTs used for truck and equipment refueling are located on-site.
- A scrap metal area containing drums, ASTs, farming equipment, and vehicles is located on the property.

- The property is located within the South Archibald Trichloroethylene (TCE) Plume. The 2,000-acre TCE Plume contains contaminated groundwater that underlies the Project site.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to the pastures for irrigation.
- Holding ponds for contaminated runoff from agricultural/dairy farm operations. Discharge from these ponds to surrounding areas; and potential infiltration of contaminated runoff to underlying groundwater.
- General debris observed throughout the property, including vehicle equipment staging areas, used tires, concrete rubble piles, compressors, and generators may have the potential to impact on-site surficial soil.
- Presence of septic systems.

Cultural Setting

Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Shoshonean groups are the three general cultural periods represented in San Bernardino County, as summarized below.

Paleo Indian Period (Late Pleistocene: 11,500 to circa 9,000 years before the present [YBP])

The Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands. However, by the end of the late Pleistocene, the climate became warmer. This resulted in glacial melting, sea level rise, coastal erosion, lake to recedence and evaporation, extinction of Pleistocene megafauna, and major vegetation changes.

Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation, utilizing a variety of resources including birds, mollusks, and both large and small mammals.

Archaic Period (Early and Middle Holocene: circa 9,000 to 1,300 YBP)

The Archaic Period of prehistory began with the onset of the Holocene around 9,000 YBP. The transition from the Pleistocene to the Holocene was a period of major environmental change throughout North America. The general warming trend caused sea levels to rise, lakes to evaporate, and drainage patterns to change. In southern California, the general climate at the beginning of the early Holocene was marked by cool/moist periods and an increase in warm/dry periods and sea levels.

Rising sea levels during the early Holocene created rocky shorelines and bays along the coast by flooding valley floors and eroding the coastline. Shorelines were primarily rocky with small littoral cells, as sediments were deposited at bay edges but rarely discharged into the ocean. These bays eventually evolved into lagoons and estuaries, which provided a rich habitat for mollusks and fish. The warming trend and rising sea levels generally continued until the late Holocene.

At the beginning of the late Holocene, sea levels stabilized, rocky shores declined, lagoons filled with sediment, and sandy beaches became established. Many former lagoons became saltwater marshes surrounded by coastal sage scrub by the late Holocene. The sedimentation of the lagoons was significant in that it had profound effects on the types of resources available to prehistoric peoples.

The changing lagoon habitats resulted in the decline of larger shellfish, the loss of drinking water, and the loss of Torrey Pine nuts, causing a major depopulation of the coast as people shifted inland to reliable freshwater sources and intensified their exploitation of terrestrial small game and plants, including acorns.

The Archaic Period in southern California is associated with a number of different cultures, complexes, traditions, horizons, and periods, including San Dieguito, La Jolla, Encinitas, Milling Stone, Pauma, and Intermediate.

Late Prehistoric Period (Late Holocene: 1,300 YBP to 1790)

Approximately 1,350 YBP, a Shoshonean-speaking group from the Great Basin region moved into San Bernardino County, marking the transition to the Late Prehistoric Period. This period has been characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period, with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between A.D. 400 and 600 and the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including the Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far reaching as the Colorado River Basin and cremation of the dead.

Protohistoric Period (Late Holocene: 1790 to Present)

Gabrielino

The territory of the Gabrielino at the time of Spanish contact covers much of present-day Los Angeles and Orange counties. The southern extent of this culture area is bounded by Aliso Creek, the eastern extent is located east of present-day San Bernardino along the Santa Ana River, the northern extent includes the San Fernando Valley, and the western extent includes portions of the Santa Monica Mountains. The Gabrielino also occupied several Channel Islands including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island.

Because of their access to certain resources, including a steatite source from Santa Catalina Island, this group was among the wealthiest and most populous aboriginal groups in all of southern California. Trade of materials and resources controlled by the

Gabrielino extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California.

The Gabrielino lived in permanent villages and smaller resource gathering camps occupied at various times of the year depending upon the seasonality of the resource. Larger villages were comprised of several families or clans, while smaller seasonal camps typically housed smaller family units. The coastal area between San Pedro and Topanga Canyon was the location of primary subsistence villages, while secondary sites were located near inland sage stands, oak groves, and pine forests. Permanent villages were located along rivers and streams, as well as in sheltered areas along the coast. As previously mentioned, the Channel Islands were also the locations of relatively large settlements.

Resources procured along the coast and on the islands were primarily marine in nature and included tuna, swordfish, ray, shark, California sea lion, Stellar sea lion, harbor seal, northern elephant seal, sea otter, dolphin, porpoise, various waterfowl species, numerous fish species, purple sea urchin, and mollusks such as rock scallop, California mussel, and limpet. Inland resources included oak acorn, pine nut, Mohave yucca, cacti, sage, grass nut, deer, rabbit, hare, rodent, quail, duck, and a variety of reptiles such as western pond turtle and snakes.

There appears to have been at least three social classes: 1) the elite, which included the rich, chiefs, and their immediate family; 2) a middle class, which included people of relatively high economic status or long-established lineages; and 3) a class of people that included most other individuals in the society. Villages were politically autonomous units comprised of several lineages. During times of the year when certain seasonal resources were available, the village would divide into lineage groups and move out to exploit them, returning to the village between forays.

Each lineage had its own leader, with the village chief coming from the dominant lineage. Several villages might be allied under a paramount chief. Chiefly positions were of an ascribed status, most often passed to the eldest son. Chiefly duties included providing village cohesion, leading warfare and peace negotiations with other groups,

collecting tribute from the village(s) under his jurisdiction, and arbitrating disputes within the village(s). The status of the chief was legitimized by his safekeeping of the sacred bundle, which was a representation of the link between the material and spiritual realms and the embodiment of power.

Shamans were leaders in the spirit realm. The duties of the shaman included conducting healing and curing ceremonies, guarding the sacred bundle, locating lost items, identifying and collecting poisons for arrows, and making rain. Marriages were made between individuals of equal social status and, in the case of powerful lineages, marriages were arranged to establish political ties between the lineages.

Men conducted the majority of the heavy labor, hunting, fishing, and trading with other groups. Women's duties included gathering and preparing plant and animal resources, and making baskets, pots, and clothing.

Gabrielino houses were domed, circular structures made of thatched vegetation. Houses varied in size and could house from one to several families. Sweathouses (semicircular, earth-covered buildings) were public structures used in male social ceremonies. Other structures included menstrual huts and a ceremonial structure called a yuvar, an open-air structure built near the chief's house.

Clothing was minimal. Men and children most often went naked, while women wore deerskin or bark aprons. In cold weather, deerskin, rabbit fur, or bird skin (with feathers intact) cloaks were worn. Island and coastal groups used sea otter fur for cloaks. In areas of rough terrain, yucca fiber sandals were worn. Women often used red ochre on their faces and skin for adornment or protection from the sun. Adornment items included feathers, fur, shells, and beads.

Hunting implements included wood clubs, sinew-backed bows, slings, and throwing clubs. Maritime implements included rafts, harpoons, spears, hook and line, and nets. A variety of other tools included deer scapulae saws, bone and shell needles, bone awls, scrapers, bone or shell flakers, wedges, stone knives and drills, metates, mullers, manos, shell spoons, bark platters, and wood paddles and bowls. Baskets were made from rush,

deer grass, and skunkbush. Baskets were fashioned for hoppers, plates, trays, and winnowers for leaching, straining, and gathering. Baskets were also used for storing, preparing, and serving food, and for keeping personal and ceremonial items.

The Gabrielino had exclusive access to soapstone, or steatite, procured from Santa Catalina Island quarries. This highly prized material was used for making pipes, animal carvings, ritual objects, ornaments, and cooking utensils. The Gabrielino profited well from trading steatite since it was valued so much by groups throughout southern California.

Serrano

Aboriginally, the Serrano occupied an area east of present-day Los Angeles. However, researchers place the Serrano in the San Bernardino Mountains east of Cajon Pass and at the base of and north of the mountains near Victorville, east to Twentynine Palms, and south to the Yucaipa Valley. Serrano has been used broadly for languages in the Takic family including Serrano, Kitanemuk, Vanyume, and Tataviam.

The Serrano were part of “exogamous clans, which in turn were affiliated with one of two exogamous moieties, tukwutam (Wildcat) and wahi?iam (Coyote)”. Details such as number, structure, and function of the clans are unknown. Clans were not political, but were rather structured based upon economic, marital, or ceremonial reciprocity, a pattern common throughout Southern California. The Serrano formed alliances amongst their own clans and with Cahuilla, Chemehuevi, Gabrielino, and Cupeño clans. Clans were large, autonomous, political and landholding units formed patrilineally, with all males descending from a common male ancestor, including all wives and descendants of the males. However, even after marriage, women would still keep their original lineage, and would still participate in those ceremonies.

The Serrano had a shaman, a person who acquired their powers through dreams, which were induced through ingestion of the hallucinogen datura. The shaman was mostly a curer/healer, using herbal remedies and “sucking out the disease-causing agents.”

Serrano village locations were typically located near water sources. Individual family dwellings were likely circular, domed structures. Daily household activities would either take place outside of the house out in the open, or under a ramada constructed of a thatched willow pole roof held up by four or more poles inserted into the ground. Families could consist of a husband, wife/wives, unmarried female children, married male children, the husband's parents, and/or widowed aunts and uncles. Rarely, an individual would occupy his own house, typically in the mountains. Serrano villages also included a large ceremonial house where the lineage leader would live, which served as the religious center for lineages or lineage-sets, granaries, and sweathouses.

The Serrano were primarily hunters and gatherers. Vegetal staples varied with locality. Acorns and piñon nuts were found in the foothills, and mesquite, yucca roots, cacti fruits, and piñon nuts were found in or near the desert regions. Diets were supplemented with other roots, bulbs, shoots, and seeds. Deer, mountain sheep, antelopes, rabbits, and other small rodents were among the principal food packages. Various game birds, especially quail, were also hunted. The bow and arrow was used for large game, while smaller game and birds were killed with curved throwing sticks, traps, and snares. Occasionally, game was hunted communally, often during mourning ceremonies. Earth ovens were used to cook meat, bones were boiled to extract marrow, and blood was either drunk cold or cooked to a thicker consistency and then eaten. Some meat and vegetables were sun-dried and stored. Food acquisition and processing required the manufacture of additional items such as knives, stone or bone scrapers, pottery trays and bowls, bone or horn spoons, and stirrers. Mortars, made of either stone or wood, and metates were also manufactured.

In general, manufactured goods included baskets, some pottery, rabbit-skin blankets, awls, arrow straighteners, sinew backed bows, arrows, fire drills, stone pipes, musical instruments (rattles, rasps, whistles, bullroarers, and flutes), feathered costumes, mats for floor and wall coverings, bags, storage pouches, cordage (usually comprised of yucca fiber), and nets.

Historic Period

The historic background of the area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding access to new resources in the region. In the late eighteenth century, the San Gabriel (Los Angeles County), San Juan Capistrano (Orange County), and San Luis Rey (San Diego County) missions began colonizing southern California, and gradually expanded their use of the interior valley (presently western Riverside County) for raising grain and cattle to support the missions. The San Gabriel Mission claimed lands in what is presently Jurupa, Riverside, San Jacinto, and the San Geronimo Pass, while the San Luis Rey Mission claimed land in what is presently Lake Elsinore, Temecula, and Murrieta. The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions. Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order.

In the mid to late 1770s, Juan Bautista de Anza passed through much of what is now Riverside County while searching for an overland route from Sonora, Mexico to San Gabriel and Los Angeles, describing fertile valleys, lakes, and sub-desert areas. Spanish missionaries formed Mission San Gabriel in the San Bernardino Valley in the early nineteenth century. The mission established Rancho San Bernardino in 1819, which included the present-day areas of San Bernardino, Fontana, Rialto, Redlands, and Colton. Since there was no reliable water source in the area, from 1819 to 1820, the missionaries developed a zanja through the use of Native American labor from the Guachama Rancheria. The creation of the zanja was implemented to divert waters from Mill Creek all the way through the City of Redlands, ending near the mission to assist with agricultural enterprises. The new water source allowed nearby ranching districts to develop during the nineteenth century.

Mexico gained independence in 1822 and desecularized the missions in 1832, signifying the end of the Mission Period. By this time, the missions owned some of the best and most fertile land in southern California. In order for California to develop, the land

would have to be made productive enough to turn a profit. The new government began distributing the vast mission holdings to wealthy and politically connected Mexican citizens. The “grants” were called “ranchos,” and many of these ranchos have lent their names to modern-day locales.

The treatment of Native Americans grew worse during the Rancho Period. Most of the Native Americans were forced off of their land or put to work on the now privately-owned ranchos, most often as slave labor.

Native American culture had been disrupted to the point where they could no longer rely upon prehistoric subsistence and social patterns. Not only does this illustrate how dependent the Native Americans had become upon the missionaries, but it also indicates a marked contrast in the way the Spanish treated the Native Americans compared to the Mexican and United States ranchers. Spanish colonialism (missions) is based upon utilizing human resources while integrating them into their society. The Mexican and American ranchers did not accept Native Americans into their social order and used them specifically for the extraction of labor, resources, and profit. Rather than being incorporated, they were either subjugated or exterminated.

In 1846, war erupted between Mexico and the United States. In 1848, with the signing of the Treaty of Guadalupe Hidalgo, the region was annexed as a territory of the United States, and California became a state in 1850. These events generated a steady flow of settlers into the area, including gold miners, entrepreneurs, health-seekers, speculators, politicians, adventurers, seekers of religious freedom, and individuals desiring to create utopian colonies.

By the late 1880s and early 1890s, there was growing discontent between San Bernardino and Riverside, its neighbor 10 miles to the south, due to differences in opinion concerning religion, morality, the Civil War, politics, and fierce competition to attract settlers. After a series of instances in which charges were claimed about unfair use of tax monies to the benefit of only San Bernardino, several people from Riverside decided to investigate the possibility of a new county.

In May 1893, voters living within portions of San Bernardino County (to the north) and San Diego County (to the south) approved the formation of Riverside County. Early business opportunities were linked to the agriculture industry but commerce, construction, manufacturing, transportation, and tourism also provided a healthy local economy.

General History of the Ontario Area

In late 1881, Canadian brothers George and William Chaffey purchased 6,218 acres of land in the Cucamonga Desert known as the “San Antonio lands.” The Chaffey brothers soon expanded to the Southern Pacific Railroad tracks on the south and into the San Antonio Canyon to the north. The Chaffey brothers intended to establish a “model colony” for migrants coming to the region and named the area “Ontario” after their hometown. Before the land could be used, however, water had to be found and brought into the town; because of this, George Chaffey laid miles of cement pipe leading from the San Antonio Canyon, which was later tapped into by the San Antonio Water Company. The need for electric power to lift the water from the deep wells in the San Antonio Canyon led to the establishment of the first commercially successful hydroelectric plant in the country, the Ontario Power Company.

During the late nineteenth century, anyone purchasing land within the Ontario Colony automatically received shares in the water company, which ensured that water would be pumped to their property. This development aided in establishing agricultural properties, primarily citrus groves, within Ontario. The Ontario Colony was officially incorporated as a City in 1891 and continued to grow throughout the twentieth century. The City became known for air flight with the establishment of Latimer Field in 1923. Urban growth pushed the airfield further and further east until it reached its present location, which currently functions as the Ontario International Airport. During World War II, the airport served as a busy training center for fighter jet pilots.

The dairy industry flourished in the area from the 1950s through the 1980s. Concerned with what many viewed as a decline in suitable agricultural land, the County of San Bernardino Board of Supervisors designated 14,000 acres of agricultural land south and west of the City of Ontario as an “agricultural preserve.” With the dairy-friendly zoning

in the southwest corner of San Bernardino County, many Dutch, Basque, and Portuguese families relocated to the region and became the cornerstone of the dairy industry. By the 1980s, the area was recognized as having more cows per acre and higher milk yields than anywhere else in the world. Starting in the late twentieth century, much of the preserve began to be annexed by neighboring cities due to a housing boom and increased operating costs for dairies. In 1999, 8,200 acres were annexed by the City of Ontario with the remaining land annexed by either the City of Chino or Chino Hills. The portion annexed by the City of Ontario was labeled the “New Model Colony,” creating a connection with the Chaffey brothers’ original “Model Colony of Ontario.”

Paleontological Resources, Unique Geological Features

The possibility of finding paleontological resources within City boundaries is considered moderate to high. Geologic maps indicate that the City is situated on surface exposures of recent alluvium. These sediments have low potential to yield fossil resources or to contain significant nonrenewable paleontological resources. However, these recent sediments overlie sediments of older Pleistocene sediments with high potential to contain paleontological resources. Older Pleistocene alluvial sediments have yielded significant fossils of extinct plants and animals elsewhere in the Inland Empire. These older sediments, often found at depths of 10 feet or more below the ground surface, have yielded the fossil remains of plants and extinct terrestrial Pleistocene vertebrates. Significant vertebrate fossils from this age include Ice Age mammals such as camels, mammoths, mastodons, and ground sloths (Ontario Plan EIR, p. 5.5-14).

There are no known paleontological resources or unique geological features within the Project site. No paleontological resources or unique geological features were encountered in the course of subsurface explorations conducted as part of the Project paleontological study.

4.10.3 EXISTING POLICIES AND REGULATIONS

4.10.3.1 Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of their undertakings on historic properties. Historic properties are cultural resources (e.g., archeological sites, historic built environment features, or Native American sites) that are listed, or determined to be eligible for listing, on the National Register of Historic Places. The implementing regulations of this mandate, found in the Code of Federal Regulations (36 CFR 800), outline an involved consultative process known as the Section 106 process. The Section 106 process requires a project lead federal agency to consult with the State Historic Preservation Officer.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act, passed in 1978, serves to protect and preserve the traditional religious rights of American Indians, Eskimos, Aleuts, and Native Hawaiians. Before the Act was passed, certain federal laws interfered with the traditional religious practices of many American Indians.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act establishes a federal policy of respect for, and protection of, Native American religious practices. It also has provisions for allowing limited access to Native American religious sites. The Act provides for the repatriation of certain items from the federal government and certain museums to the native groups to which they once belonged. The Act defines “cultural items,” “sacred objects,” and “objects of cultural patrimony” and establishes a means for determining ownership of these items. However, the provisions for repatriation only apply to items found on federal lands.

Executive Order 13007 and Executive Order 13084

Executive Order 13007 requires federal agencies with land management responsibilities to allow access to and use of Indian sacred sites on public lands, and to avoid adversely affecting these sites. Executive Order 13084 reaffirms the government-to-government relationship between the federal government and recognized Indian tribes, and requires federal agencies to establish procedures for consultation with tribes. These executive orders only apply to projects that include federal undertakings.

4.10.3.2 State

CEQA and the California Register of Historical Resources

Historical resources are recognized as part of the environment under the California Environmental Quality Act (CEQA). The California Register of Historical Resources (California Register) is the authoritative guide for the State's historical resources, and properties included in the California Register are considered significant for the purposes of CEQA. The California Register includes resources listed, or formally determined eligible for listing, on the National Register of Historic Places, and some California State Landmarks and Points of Historical Interest. Properties of local significance designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory, may be eligible for listing in the California Register and are presumed to be significant resources for the purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC § 5024.1, 14 CCR § 4850).

An archaeological site may be considered a historical resource if it is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (PRC § 5020.1(j)), or if it meets the criteria for listing on the California Register (14 CCR § 4850).

The *CEQA Guidelines* direct lead agencies to evaluate an archaeological site to determine if it meets the criteria for listing in the California Register. If it does, potential adverse impacts must be considered. If an archaeological site is not a historical resource, but

meets the definition of a “unique archaeological resource” as defined in PRC §21583.2, then it should be treated in accordance with the provisions of that section.

Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired (PRC § 5020.1(q)). While demolition and destruction would constitute significant impacts, it is sometimes more difficult to assess when change, alteration, or relocation results in a substantial adverse change. The *CEQA Guidelines* provide that a project that alters those physical characteristics of a historical resources that convey its significance (i.e., its character-defining features), can be considered to materially impair the resource’s significance.

California Native American Graves Protection and Repatriation Act (2001)

The California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010-8030) contains broad provisions for the protection of Native American cultural resources. The California Native American Graves Protection and Repatriation Act establishes policy to ensure that California Native American human remains and cultural items are treated with respect and dignity. The Act also provides the mechanism for disclosure and return of these items held by publicly funded agencies and museums in California. Additionally, the Act outlines the mechanism by which California Native American tribes not recognized by the federal government may file claims for human remains and cultural items held in agencies or museums.

California Public Resources Code

The California Public Resources Code contains several sections applicable to the preservation of cultural resources and human remains. These sections detail procedures to be followed whenever Native American remains are found, and delineate the unauthorized disturbance or removal of archaeological, historical, paleontological resources, or human remains as an act punishable by law (Sections 5020, 5097.5, 5097.9-5097.996, 7050.5, 7051). As matter of law, the Project would comply with applicable provisions of the California Public Resources Code addressing preservation and protection of cultural resources and human remains.

California Code of Regulations

Under Title 14, Division 3, Section 4308, no person shall remove, injure, disfigure, deface, or destroy any object of archeological or historical interest or value.

Senate Bill 18 and Tribal Consultation Guidelines

Senate Bill 18 (SB 18) requires local agencies to consult with California Native American tribes regarding the preservation of, or mitigation of impacts to, Native American places, features, or objects.

SB 18 applies to all federally recognized and non-federally recognized tribes in California and extends to projects on both private and public lands. Lead agencies must follow a ten-step process to ensure consultation with affected tribes. Lead agencies must follow this process when making certain planning decisions, such as adopting or amending General Plans or Specific Plan-level projects. SB 18 does not apply to other discretionary level projects, such as tentative maps, use permits, or other local discretionary projects.

Assembly Bill 52 (AB 52) Tribal Cultural Resources

As of July 1, 2015, AB 52 established a new category of resources under CEQA called “tribal cultural resources” that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigations. AB 52 was built on the concept that California Native American tribes have the expertise “with regard to tribal history and practices” to identify significant cultural resources. To this end, AB 52 requires early consultation in the CEQA process to ensure that local and Tribal governments, public agencies, and Project proponents have information available, early in the CEQA environmental review process, for the purpose of identifying and addressing potential adverse impacts to tribal cultural resources.

AB 52 requires that the lead agency contact (in writing) all culturally affiliated tribes that could be affected by a Project, within 14 days of deeming a development application complete. The notice commences a 30-day period for the tribe to request consultation. Upon receipt of a request consultation, the lead agency has an additional

30 days to begin the consultation process. AB 52 states that the consultation concludes when either “1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal resource, or 2) a party, acting on good faith and after a reasonable effort, concludes that mutual agreement cannot be reached.” AB 52 notes that the consultation can be ongoing throughout the CEQA process.

4.10.4 STANDARDS OF SIGNIFICANCE

Consistent with the standards of significance outlined in the *CEQA Guidelines*, Project-related impacts to cultural resources would be considered potentially significant if they cause or result in any of the following:

- Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries.
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - (i) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
 - (ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1,

the lead agency shall consider the significance of the resource to a California Native American tribe.

- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

4.10.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.10.5.1 Introduction

The following analysis is focused on areas where it has been determined that the Project may result in potentially significant impacts, based on the analysis included within the Initial Study. As substantiated in the Initial Study, the Project's potential to disturb any human remains, including those interred outside of formal cemeteries was previously determined to be less-than-significant. Please refer to Initial Study Checklist Items V., *Cultural Resources*, VII., *Geology And Soils* (item f.), and XVIII., *Tribal Cultural Resources*. All other potential cultural resources impacts of the Project are discussed below.

4.10.5.2 Impact Statements

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

Impact Analysis: A preliminary assessment of potential historical resources within the Project site is presented in the Project Cultural Resources Study (August 27, 2019). The subsequent Project HRS (April 28, 2020) presents detailed evaluation and documentation of potential historical resources of at least 45 years old. Results of the Project HRS are summarized at Table 4.10-1.

**Table 4.10-1
Project HRS Summary**

| Property Owner | Address | Year Built | APN | CHR Status Code |
|--------------------------------------|---|-------------------|--|------------------------|
| Joseph & Doleen Borba | 14525 S Grove Avenue | 1958 | 105412101 105412102 | 6Z |
| | 8551 Eucalyptus Avenue / 8521 Eucalyptus Avenue | 1960 / 1965 | 105416101 105415101 105420101 105435101 | 6Z |
| | 14651 Grove Avenue / 14545 Grove Avenue | 1965 / 1965 | 105411101 105411102 105422101 105422102 105433101 105433102 | 6Z |
| | 8321 Eucalyptus Avenue | 1970 | 105413101 105414101 105421101 105434101 | 6Z |
| | 8477 Eucalyptus Avenue | 1980 | 105413102 105414102 105421102 105434102 | 6Z |
| GH Dairy | 8643 Eucalyptus Avenue | 1965 | 105416103 105415102 105420102 105435102 | 6Z |
| Henri Laurent Minaberry | 8810 Merrill Avenue / 8816 Merrill Avenue / 8920 Merrill Avenue | c. 1967 | 105436102 105419102 | 6Z |
| | 8731 Eucalyptus Avenue | 1968 | 105417101 105417102 105418101 105419101 105436101 105416102 | 6Z |
| | 8831 Eucalyptus Avenue | 1969 | 105417103 | 6Z |

**Table 4.10-1
Project HRS Summary**

| Property Owner | Address | Year Built | APN | CHR Status Code |
|----------------------|---|-------------|-------------------------------------|-----------------|
| | 8888 Eucalyptus Avenue | 1969 | 105417104 105418102 | 6Z |
| 9052 Merrill Ave LLC | 8911 Eucalyptus Avenue | 1969 | 21826135 | 6Z |
| | 9032 Merrill Avenue / 8966 Merrill Avenue | 1956 / 1954 | 021826137 021826129 | 6Z |
| Prologis LP | 9031 Eucalyptus Ave | - - - | 021826134 021826127 021826128 | 6Z |

Source: Historical Resource Survey (Urbana Preservation & Planning, LLC) April 28, 2020.

Notes: APN = Assessor Parcel Number; CHR = California Historical Resources.

Based on the Project HRS findings, all buildings and structures within the Project site were found to be ineligible for listing on the National Register, California Register, or Local designation (California Historical Resources Status Code 6Z). However, the HRS concluded that five of the buildings or structures listed at Table 4.10-1 appear to qualify as contributing elements to the New Model Colony / Chino Valley Dairy Historic District (California Historical Resources Status Code 5D3) identified within the City of Ontario New Model Colony Area Historic Context Statement (HRS, p. 2). The five potential contributors (Contributors) to the New Model Colony / Chino Valley Dairy Historic District (District) are:

- 8731 Eucalyptus Avenue - Related buildings and structures on the Minaberry Property (significant under the Post-1950 Scientific, Large Capacity Dairy and 1960s-1980s Ranch Style Houses themes);
- 8831 Eucalyptus Avenue - Single Family Residence only on the Minaberry Property (significant under the 1960s-1980s Ranch Style Residence theme);
- 8888 Eucalyptus Avenue - Single Family Residence only on the Minaberry Property (significant under the 1960s-1980s Ranch Style Residence theme);

- 14651 S. Grove Avenue - Related buildings and structures on the Borba Family Property (significant under the Post-1950 Scientific, Large Capacity Dairy / 1960s-1980s Ranch Style Residence themes); and
- 8643 Eucalyptus Avenue - Related buildings and structures on the GH Dairy Property (significant under the Post-1950 Scientific, Large Capacity Dairy / 1960s-1980s Ranch Style Residence themes).

Consistent with direction provided by the City, and for the purposes of this analysis, the above Contributors are recognized as likely eligible for listing on the local inventory. As proposed, these Contributors would be demolished to allow for implementation of the Project. This is a potentially significant impact.

Level of Significance: Potentially Significant (impacts to residences and/or dairy properties at: 8731 Eucalyptus Avenue; 8831 Eucalyptus Avenue; 8888 Eucalyptus Avenue; 14651 S. Grove Avenue; and 8643 Eucalyptus Avenue).

Mitigation Measures:

4.10.1 Mitigation shall be provided consistent with City requirements, to include:

- *Payment of mitigation fees,¹*
- *Provisions of as-built drawings and HABS photo documentation;² and*

¹ Mitigation fees will be established by using the City's mitigation fee structure which has been in place since 2003. Fee structure is based on the ICC Building Valuation Data. Fees are 10-30% of the sf cost to construct the building that is being demolished. Depending on the type of structure (wood framed one family home, utility, and industrial, cost per sf is determined. The percentage (or fee amount) applied to the cost per sf is determined by the level of integrity assigned in the HSR. 10% of building costs will be assessed for moderate level integrity and 20% will be for high level integrity. Once the HSR is updated with integrity levels and sf, fee amounts for each property and building will be provided. Fees shall be paid prior to issuance of demolition permits.

2020 ICC BVD:

R-3 Residential, one- and two-family, \$122 per sf

F-2 Factory and industrial, low hazard (milk barn), \$70 per sf

U Utility, miscellaneous (garages and storage barn), \$48 per sf

- *Development of Historic Context Reports for significant persons in the dairy farm industry, such as the Borba family.*³

Application of mitigation, per City requirements, would diminish impacts to the noted potential Contributors (8731 Eucalyptus Avenue; 8831 Eucalyptus Avenue; 8888 Eucalyptus Avenue; 14651 S. Grove Avenue; and 8643 Eucalyptus Avenue). However, because these potential Contributors would be demolished as part of the Project, this impact could not be reduced to levels that would be less-than-significant. On this basis, impacts to residences and/or dairy properties at: 8731 Eucalyptus Avenue; 8831 Eucalyptus Avenue; 8888 Eucalyptus Avenue; 14651 S. Grove Avenue; and 8643 Eucalyptus Avenue would be significant and unavoidable.

Further, there remains the potential for current and future demolition of Contributors or potential Contributors to occur within the District, which combined with demolition of the potential Contributors within the Project site would result in cumulatively significant impacts to the District. This is particularly relevant when considered in the context of historic districts generally, which rely on the collective significance of Contributors to be able to convey a given district's historic significance. On this basis, demolition of potential Contributors within the Project site is considered cumulatively significant and unavoidable within the context of the District.

Level of Significance With Mitigation: *Significant and Unavoidable.*

In addition to the requirements identified at Mitigation Measure 4.10.1, various alternatives to demolition that were considered but were ultimately determined to be infeasible are summarized below:

² As built drawings shall be limited to a site plan for each property (may have multiple parcels) and floor plans for all houses and garages, milk barns and attached pole structures, and barns that contribute to the significance of the property, photo documentation shall be prepared in accord with the National Park Service Guidelines for recording Historic American Building Survey (HABS). MM to be completed prior to issuance of any City approval or building permit such as grading or demolition that would result in a change to the historic setting and resource.

³ This shall be completed prior to issuance of first building occupancy.

- **In Situ Retention:** In situ of these contributors would be incompatible with, and would conflict with the proposed Specific Plan Land Use Plan, Development Standards, and Design Guidelines and would not allow for implementation of the Project. In situ retention of these contributors is therefore not considered feasible.
- **Retention and Adaptive Reuse:** Similarly, retention and adaptive reuse of these contributors would be incompatible with, and would conflict with the proposed Specific Plan Land Use Plan, Development Standards, and Design Guidelines and would not allow for implementation of the Project. Retention of and adaptive use of these contributors is therefore not considered feasible.
- **Relocation:** Relocation of the contributors may be possible, pending identification of a recipient site that is within the New Model Colony [Ontario Plan] boundaries and that maintains similar setting and location, and historic associations. Additionally, each relocated building should retain original materials and design features that give evidence of original workmanship and feeling / aesthetic such that the resource, upon relocation, maintains the ability to convey its identified significance. There are no designated recipient sites that meet the relocation criteria noted. Moreover, buildout of the City as envisioned under The Ontario Plan would ultimately result in urbanization of the area and would not allow for relocation at a recipient site that maintains similar setting, and location, and historic associations for the affected contributors. Relocation of the contributors is therefore considered infeasible.

Please refer also to related discussions presented at EIR Section 5.2, *Alternatives*.

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

Impact Analysis: Under existing law, environmental documents must not include information about the location of an archeological site or sacred lands or any other

information that is exempt from public disclosure pursuant to the Public Records Act. (Cal. Code Regs. § 15120(d)). Consistent with these requirements, detailed documentation of archaeological resources occurring or potentially occurring within the Project site is excluded here. This information is presented in the confidential Cultural Resources Appendix provided to the City. Mitigation measures below address potential impacts to known or potential archaeological resources that may be encountered in the course of Project development.

4.10.2 Archaeological, Historical, and Tribal Cultural Resources: Prior to the issuance of the first grading permit, the applicant shall provide a letter to the City of Ontario Building Department, or designee, from a qualified professional archeologist meeting the Secretary of Interior's Professional Qualifications for Archaeology as defined at 36 CFR Part 61, Appendix A stating that the archeologist has been retained to provide on-call services in the event archeological resources are discovered. The archeologist shall be present at the pre-grading conference to establish procedures for archeological resource surveillance. In the event a previously unrecorded archaeological deposit is encountered during construction, all activity within 50 feet of the area of discovery shall cease and the City shall be immediately notified. The archeologist shall be contacted to flag the area in the field and determine if the archaeological deposits meet the CEQA definition of historical (State CEQA Guidelines 15064.5(a)), unique archaeological resource (Public Resources Code 21083.2(g)), or Tribal Cultural Resource (Public Resources Code 21074 (a)). If the find is considered a "resource" the archeologist shall pursue either protection in place or recovery, salvage and treatment of the deposits. A qualified archaeologist and a Native American Monitor of Gabrieleño Ancestry shall evaluate all archaeological resources unearthed by Project construction activities. If the resources are Native American in origin, they shall have the opportunity to consult with the City and/or Project developer on appropriate treatment and curation of these resources. If unique archaeological resources, or Tribal Cultural Resources cannot be preserved in place or left in an undisturbed state, recovery, salvage and treatment shall be required at the applicant's expense. Recovery, salvage and treatment protocols shall be developed in accordance with applicable provisions of Public Resource Code Section 21083.2 and State CEQA Guidelines 15064.5 and 15126.4. All recovered and salvaged resources shall be prepared

to the point of identification and permanent preservation by the archaeologist. Resources shall be identified and curated into an established accredited professional repository. The archaeologist shall have a repository agreement in hand prior to initiating recovery of the resource. Excavation as a treatment option will be restricted to those parts of the unique archaeological resource, or Tribal Cultural Resource that would be damaged or destroyed by the Project.

4.10.3 Native American Monitoring. Prior to commencement of any excavation activities, the Project developer shall retain a Native American Monitor of Gabrieleño Ancestry to:

- Conduct a Native American Indian Sensitivity Training for construction personnel. The training session shall include a handout and focus on how to identify Tribal Cultural Resources/Native American resources encountered during earthmoving activities and the procedures followed if resources are discovered, the duties of the Native American Monitor of Gabrieleño Ancestry, and the general steps the Monitor would follow in conducting a salvage investigation.*
- Monitor all project-related, ground-disturbing construction activities (e.g., pavement removal, auguring, boring, grading, excavation, potholing, trenching, and grubbing) of previously undisturbed native soils to a maximum depth of 30 feet below ground surface. At their discretion and expense, a Native American Monitor of Gabrieleño Ancestry can be present during the removal of dairy manure to native soil.*

4.10.4 Native American Human Remains. Prior to the start of ground disturbing activities, the project developer shall designate a location within the footprint of the Project site for the respectful reburial of Native American human remains and/or ceremonial objects. All human skeletal material discoveries shall be reported immediately to the County Coroner. The Native American Monitor shall immediately divert work a minimum of 50 feet from the discovery site and place an exclusion zone around the burial. The Native American Monitor shall notify the construction manager who shall contact the San Bernardino County Coroner. Pursuant to California Health and Safety Code, Section 7050.5, all construction activity shall be diverted while the San Bernardino County Coroner

determines if the remains are Native American. If the San Bernardino County Coroner determines the remains represent a historic non-Native American burial, the burial shall be treated in the same manner of respect with agreement of the San Bernardino County Coroner. Reburial will be in an appropriate setting. If the San Bernardino County Coroner determines the remains to be modern, the San Bernardino County Coroner shall take custody of the remains.

If Native American, the San Bernardino County Coroner shall notify the Native American Heritage Commission (NAHC) as mandated by state law who will then appoint a Most Likely Descendent. The discovery shall be confidential and secure to prevent further disturbance. In the case where discovered human remains cannot be documented and recovered on the same day, the remains shall be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard shall be posted outside working hours. The Native American Tribe of Gabrieleño Ancestry shall make every effort to recommend diverting the Project and keep the remains in situ and protected. If the Project cannot be diverted, it may be determined that burials will be removed. If data recovery is approved by the Tribe, documentation shall be taken, which includes at a minimum, detailed descriptive notes and sketches. Additional types of documentation shall be approved by the Tribe for data recovery purposes. No scientific study or the utilization of any invasive diagnostics shall be allowed to any Native American human remains. Cremations will either be removed in bulk or means necessary to ensure complete recovery of all material. If the discovery of human remains includes four (4) or more burials, the location is considered a cemetery and a separate treatment plan shall be created. The Project developer shall consult with the Tribe regarding avoidance of all cemetery sites. Each occurrence of human remains and associated funerary objects shall be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony shall be removed to a secure container onsite if possible. These items shall be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the Project site, but at a location agreed upon between the Tribe and the developer and protected in perpetuity. There shall

be no publicity regarding any cultural materials recovered. Once complete, a final report of all activities shall be submitted to the NAHC.

Level of Significance After Mitigation: Less-Than-Significant. Implementation of mitigation measures ensures that archaeological resources of potential significance would be avoided, or would be appropriately collected, documented, and curated. On this basis, as mitigated, the potential for the Project to cause a substantial adverse change in the significance of archaeological resources pursuant to §15064.5 would be less-than-significant.

Potential Impact: *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*

(iii) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

(iv) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact Analysis: As part of the Project Cultural Resources Study, a sacred lands search request was sent to the Native American Heritage Commission (NAHC). The Sacred Lands File search conducted by the NAHC had negative results.

The City has contacted tribes on its most current AB 52 Consultation list. A request to initiate formal consultation regarding the Project site was subsequently received from the Gabrieleño Band of Mission Indians – Kizh Nation. Mitigation presented previously in this Section reflects Gabrieleño Band of Mission Indians – Kizh Nation requirements

identified through the consultation process. These measures establish monitoring protocols, and provisions for avoidance, protection, or curation of Tribal Cultural Resources (TCRs).

Level of Significance: Potentially Significant.

Mitigation Measures: Please refer to previous Mitigation Measures 4.10.2, 4.10.3, and 4.10.4.

Level of Significance After Mitigation: Implementation of Mitigation Measures 4.10.2, 4.10.3, and 4.10.4 ensures that TCRs would be avoided, or would be appropriately collected, documented, and curated. On this basis, with application of mitigation, the potential for the Project to cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code section 21074 would be less-than-significant.

Potential Impact: *Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

Paleontological Resources

The Project site is relatively flat and does not contain any unique geological features. No evidence of paleontological resources was identified during the survey and none is expected in the younger alluvial deposits. It is nonetheless possible that as yet unknown paleontological resources of potential significance could be encountered during grading and excavation activities. These resources would occur (if at all) at depths >10 feet bgs. That is, the Ontario Plan EIR indicates that there is a moderate to high potential to encounter paleontological resources at depths of 10 feet or greater bgs. On this basis, there is the potential for the Project excavations at depths of greater than 10 feet bgs to destroy paleontological resources. This is a potentially significant impact. The Project does not propose uses or activities that would indirectly contribute to or result in potentially adverse impacts to paleontological resources.

Level of Significance [impacts to paleontological resources]: Potentially Significant.

Mitigation Measures:

4.10.5 *Paleontological monitoring shall be conducted during all grading and trenching operations. Monitoring shall be conducted intermittently during initial cuts until the Quaternary deposits are encountered. Once Quaternary deposits are identified, paleontological monitoring shall be conducted on a full-time basis.*

4.10.6 *Paleontological monitors shall be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediment that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall be empowered to temporarily halt or divert equipment to allow for the removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if they are present, are determined upon exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources.*

4.10.7 *Recovered specimens shall be prepared of to a point of identification and permanent preservation, including screen-washing sediments to recover small invertebrates and vertebrates if indicated by the results of test sampling.*

4.10.8 *All recovered fossils shall be deposited in an accredited institution (university or museum) that maintains collections of paleontological materials. All costs of the paleontological monitoring and mitigation program, including any one-time charges by the receiving institution, shall be the responsibility of the developer(s).*

4.10.9 *At the conclusion of monitoring activities at a given location, the paleontological monitor shall prepare a Final Mitigation and Monitoring Report (Final Report). The Report shall identify findings and significance of findings, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). A letter documenting receipt and acceptance of all fossil collections by the receiving institution*

shall be included in the Final Report. The Final Report, when submitted to and accepted by the Lead Agency (City of Ontario), shall signify satisfactory completion of mitigation of potential impacts to paleontological resources.

With the incorporation of Mitigation Measures 4.10.5 – 4.10.9, the potential for the Project to directly or indirectly destroy a unique paleontological resource is considered less-than-significant.

Level of Significance After Mitigation: Less-Than-Significant.

Geological Features

With regard to unique geological features, the City has not established criteria for determining what comprises a unique geological feature. Other relevant agency criteria however indicates that a geological feature could be generally considered unique if it:

- Is the best example of its kind locally or regionally;
- Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally;
- Provides a key piece of geologic information important in geology or geologic history;
- Is a “type locality” of a geological feature;
- Is a geologic formation that is exclusive locally or regionally;
- Contains a mineral that is not known to occur elsewhere in the County; or
- Is used repeatedly as a teaching tool.⁴

As summarized herein, the Project site is generally underlain by alluvium and surficial fill soils, extending to depths of up to 30± feet. Fill soils are undocumented and vary widely in strength and composition. Most samples include varying amounts of debris including plastic and metal. Surface and near-surface soils also exhibit manure and organic content at various concentrations and depths. These soil types are common

⁴ *County of San Diego Guidelines for Determining Significance Unique Geology* (County of San Diego, Department of Planning and Land Use Department of Public Works) June 30, 2007, p. 1.

within the City and Southern California, and do not comprise unique geological features as described above. The Project does not propose uses or activities that would indirectly contribute to or result in potentially adverse impacts to a unique geological feature.

Based on the preceding, the potential for the Project to directly or indirectly destroy a unique geological feature is considered less-than-significant.

Level of Significance [impacts to geological features]: Less-Than-Significant.

4.11 AGRICULTURAL RESOURCES

4.11 AGRICULTURAL RESOURCES

Abstract

This Section addresses potential impacts to agricultural resources that may result from the Project. Specifically, the analysis presented here evaluates whether the Project would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use; or*
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.*

As substantiated in this Section, the Project would result in conversion of on-site Farmland to urban uses. Additional conversion of off-site agricultural lands to non-agricultural purposes could also occur as a result of construction of master plan infrastructure improvements supporting the Project. These are considered to be significant and unavoidable impacts. However, the Project would not cause or result in significant and unavoidable agricultural resources impacts and loss of Farmland impacts beyond those already considered and addressed in the Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment EIR. The Ontario Plan EIR, and the [City of Ontario] Infrastructure Master Plans MND. The Project would not result in new significant and unavoidable agricultural resources impacts and loss of Farmland not otherwise occurring pursuant to the Policy Plan Land Use Plan.

As also discussed in this Section, the Project's potential to conflict with existing zoning for agricultural use, or a Williamson Act contract would be less-than-significant.

Additionally, as discussed in the EIR Initial Study (EIR Appendix A), the Project's potential impacts under certain agricultural resources topics were previously determined to have no impact. On this basis, the following topics are not further discussed here:

- *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));*
- *Result in the loss of forest land or conversion of forest land to non-forest use; or*
- *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.*

4.11.1 INTRODUCTION

This Section describes existing agricultural resources and the potential effects of Project implementation on area agricultural resources. Descriptions and analysis within this Section are based on information provided by the Project Applicant, information presented in The Ontario Plan EIR, and relevant agricultural resources information obtained from the California Department of Conservation (CDC), San Bernardino County and the Southern California Association of Governments (SCAG).

4.11.2 SETTING

4.11.2.1 Background

Historically, agriculture, dairy farming, and cattle raising have been important components of the Inland Empire regional economy. However, due to area population growth and economic pressures, these uses are in decline throughout the Inland Empire, including within the City of Ontario.

Locally and regionally, dairy, cattle raising, and other agricultural uses are also experiencing increased competition from dairies and farms in the California's Central Valley. As a result, dairy/agricultural uses within the City have either been converted to nonagricultural uses or have migrated from the City to the Central Valley (The Ontario Plan EIR, p. 5.2-5).

The Ontario Plan envisions that under buildout conditions, agricultural uses within the City would be largely displaced by urban uses. Within the Ontario Ranch area encompassing the Project site, current agricultural uses are planned to transition to residential, commercial, industrial, open space, or public lands.

The Ontario Plan EIR evaluated the impacts related to the City-wide conversion of agricultural uses to urban uses, and found that buildout of the City as envisioned under The Ontario Plan would result in the following significant and unavoidable impacts:

- Buildout of The Ontario Plan would convert the existing 3,269.3 acres of California Resource Agency–designated Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (Farmland) to residential, commercial, mixed-use, and industrial land uses;
- Buildout of The Ontario Plan would conflict with existing Williamson Act contract lands; and
- Buildout of The Ontario Plan would impact adjacent agricultural land uses in neighboring communities and cities.

[The Ontario Plan EIR, pp. 5.2-9 – 5.2-11]

As discussed in this Section, the Project would not result in any significant impacts to agricultural resources not already identified within The Ontario Plan EIR.

4.11.2.2 Existing Conditions

State

Statewide, agricultural lands have experienced a general, though fluctuating decline as a component of the state's land use composition. Urbanization is an important component of agricultural land conversion. However, land use conversions are also affected by and respond to economic and resource-related factors. For example, for the period 2010 - 2012, land use conversions were affected by the recession and persistent drought conditions. An overview of statewide agricultural land use conversions and contributing factors is described in the California Department of Conservation *California Farmland Conversion Report 2015* (the latest Report of record):

California's agricultural landscape continues to evolve in conjunction with economic and resource-related factors. Between 2010 and 2012, urban development impacted 29,342 acres, 34 percent fewer than the 44,504 acres urbanized between 2008 and 2010. This was the lowest urbanization amount in a biennial mapping cycle since the [California Department of Conservation Farmland Mapping and Monitoring Program] FMMP began in 1984. Approximately 21 percent of urban conversions were derived from irrigated farmland, and 29 percent from dryland farming and grazing land.

A total of 58,587 acres were removed from irrigated land uses during the 2012 update; a 65 percent decrease compared with the 168,039 acre irrigated land loss posted in 2010. These totals include the impact of all factors—urbanization, land idling, habitat conversion, and low density rural development. As was the case during the past two update cycles, conversions from irrigated land to Grazing Land and Farmland of Local Importance exceeded urban land conversions by a wide margin. Land

idling in some locations was partially offset by development of new irrigated lands . . . ¹

Effects of urbanization on agricultural land within the Southern California region are noted within the 2015 Farmland Conversion Report, as excerpted below:

Southern California, San Joaquin Valley, and Sacramento area counties comprised much of the top ten urbanizing list during the 2012 Important Farmland update. The top ten counties hosted 70 percent of statewide urban growth during the period, similar to the proportion they claimed during the 2010 update. . . . San Bernardino County was also among the top ten this update.²

San Bernardino County

The CDC regularly reviews and reports on the status of Farmland by county jurisdiction. Table 4.11-1 presents information from the 2015 California Farmland Conversion Report summarizing farmland conversion within San Bernardino County.

**Table 4.11-1
San Bernardino County
2010 – 2012 Land Use Conversion**

| Land Use Category | Total Acreage Inventoried | | 2010 – 2012 Acreage Changes | | | |
|------------------------------------|---------------------------|---------------|-----------------------------|--------------|-----------------------|---------------------|
| | 2010 | 2012 | Acres Lost | Acres Gained | Total Acreage Changed | Net Acreage Changed |
| | | | | | | |
| Prime Farmland | 12,848 | 12,482 | 730 | 364 | 1,094 | -366 |
| Farmland of Statewide Importance | 6,242 | 5,860 | 492 | 110 | 602 | -382 |
| Unique Farmland | 2,511 | 2,623 | 13 | 125 | 138 | 112 |
| Farmland of Local Importance | 1,160 | 956 | 205 | 1 | 206 | -204 |
| Important Farmland Subtotal | 22,761 | 21,921 | 1,440 | 600 | 2,040 | -840 |

¹ California Department of Conservation. (2015). *California Farmland Conversion Report 2015*. p. 13. Retrieved from https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf

² Ibid., p. 14.

**Table 4.11-1
San Bernardino County
2010 – 2012 Land Use Conversion**

| Land Use Category | Total Acreage Inventoried | | 2010 – 2012 Acreage Changes | | | |
|-----------------------------------|---------------------------|------------------|-----------------------------|--------------|-----------------------|---------------------|
| | | | Acres Lost | Acres Gained | Total Acreage Changed | Net Acreage Changed |
| | 2010 | 2012 | | | | |
| Grazing Land | 902,588 | 902,869 | 920 | 1,201 | 2,121 | 281 |
| Agricultural Land Subtotal | 925,349 | 924,790 | 2,360 | 1,801 | 4,161 | -559 |
| Urban and Built-up Land | 277,874 | 278,910 | 212 | 1,248 | 1,460 | 1,036 |
| Other Land | 245,813 | 245,336 | 876 | 399 | 1,275 | -477 |
| Water Area | 510 | 510 | 0 | 0 | 0 | 0 |
| Total Area Inventoried | 1,449,546 | 1,449,546 | 3,448 | 3,448 | 6,896 | 0 |

Source: California Farmland Conversion Report 2015 (California Department of Conservation Division of Land Resources Protection). Table A-28.

Additionally, the San Bernardino County Department of Agriculture (SBCDA) provides an overview of agricultural production in the County. Table 4.11-2 presents information from the SBCDA 2017 Crop Report summarizing primary sources of County agricultural production, by dollar value.

**Table 4.11-2
San Bernardino County
Top Ten Agricultural Products (by dollar value)**

| 2017 Rank | Product | Value | % of Total | 2016 Rank |
|----------------------|----------------------------|-----------------------|--------------|------------|
| 1 | Milk | \$ 161,462,000 | 34.7% | 1 |
| 2 | Cattle & Calves (Meat) | \$ 102,871,000 | 22.1% | 2 |
| 3 | Eggs | \$ 35,942,000 | 7.7% | 4 |
| 4 | Replacement Heifers | \$ 35,318,000 | 7.6% | 3 |
| 5 | Trees & Shrubs | \$ 20,516,000 | 4.4% | 7 |
| 6 | Indoor Decoratives | \$ 16,568,000 | 3.6% | 6 |
| 7 | Alfalfa (All types) | \$ 13,389,000 | 2.9% | 5 |
| 8 | Oriental Vegetables | \$ 12,807,000 | 2.8% | 9 |
| 9 | Citrus Fruit | \$ 8,332,000 | 1.8% | 8 |
| 10 | Groundcover/Bedding Plants | \$ 7,774,000 | 1.7% | 10 |
| TOTAL TOP TEN | | \$ 414,979,000 | 89.3% | --- |

Source: Annual Crop Report 2017 (San Bernardino County, Agriculture/Weights & Measures) 2017, p.1.

Notes: Valuations are estimated gross average returns received by growers and producers.

Countywide, the gross valuation of agricultural production increased by approximately 1.8 percent for the period 2016 – 2017, due primarily to a higher value received for milk, an increase in the sales of Nursery Stock and an increase in both the price and the number of eggs produced in the County. Acreage for vegetable and fruit tree crops continues to decline as producers sell the land for other uses. Citrus acreage in specific has been shrinking as producers have been removing minimally producing or non-productive groves in an effort to combat citrus tree diseases. The ongoing drought continues to reduce the overall production and total value of many of the field crops in the High Desert areas.³

The City of Ontario lies in the SBCDA “Central” and “West End North” portions of the County. These areas of the County are responsible for approximately 4.15 percent (by dollar value) of the County’s total agricultural production.⁴

Project Site

Agricultural Land Uses

The Project site has historically been utilized for various agricultural and dairy farming purposes since the late 1930s. The Project site currently evidences a dairy farm with interior unpaved roads, cattle stockades, support equipment for cattle and dairy farming, bio-retention basins located at the southern boundary, a trucking operation on the eastern portion, and appurtenant residences at various locations within the Project site. Current uses within the Project site are indicated at Figure 4.11-1.

The Project site is extensively disturbed and evidences environmental degradation due to historic and on-going agricultural and trucking uses. Such degradation includes, but is not limited to:

³ San Bernardino County. (2017). *Annual Crop Report 2017*. p. 9. Retrieved from <http://cms.sbcounty.gov/Portals/13/CropReports/2017CropReport.pdf?ver=2018-12-11-094949-193>

⁴ Ibid., n.p.

- Animal waste from the long-term dairy farm uses have potentially created methane gas, and soil contamination from nitrates and ammonia.
- Numerous automotive fluids, including several large above ground storage tanks (ASTs) on or near the on-site maintenance shop. These materials are used for maintaining and repairing farm equipment.
- Additional ASTs used for truck and equipment refueling are located on-site.
- A scrap metal area containing drums, ASTs, farming equipment, and vehicles is located on the property.
- Dairy operations use formaldehyde, iodine, and glycerol to wash the cows. The dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to the pastures for irrigation.
- Holding ponds for contaminated runoff from agricultural/dairy farm operations. Discharge from these ponds to surrounding areas; and potential infiltration of contaminated runoff to underlying groundwater.
- General debris observed throughout the property, including vehicle equipment staging areas, used tires, concrete rubble piles, compressors, and generators may have the potential to impact on-site surficial soil.
- Presence of septic systems.

Agricultural Zoning

The existing Zoning designation of the Project site is “Specific Plan” (SP) with an “AG” (Agricultural) Overlay. City of Ontario Development Code (Development Code) descriptions of the Specific Plan Zoning District and AG Overlay are presented below:

SP (Specific Plan) Zoning District. The SP zoning district is hereby established to accommodate the adoption of Specific Plans pursuant to this Development Code. The SP zoning district is consistent with, and implements, all land use designation of the Policy Plan component of The Ontario Plan (Development Code, p. 5.01-6).

AG (Agriculture) Overlay District. The AG Overlay District is hereby established to accommodate the continuation of agricultural uses within the City, on an interim basis, until such time that development is slated to occur consistent with the Policy Plan component of The Ontario Plan and the underlying zoning district. Furthermore, it is the intent of this Overlay District to permit continued agricultural use of properties or to establish general agricultural uses, including dairies, which are appropriate for areas of concentrated agricultural uses. The AG Overlay District is consistent with, and implements, all land use designation of the Policy Plan component of The Ontario Plan (Development Code, p. 5.01-6).

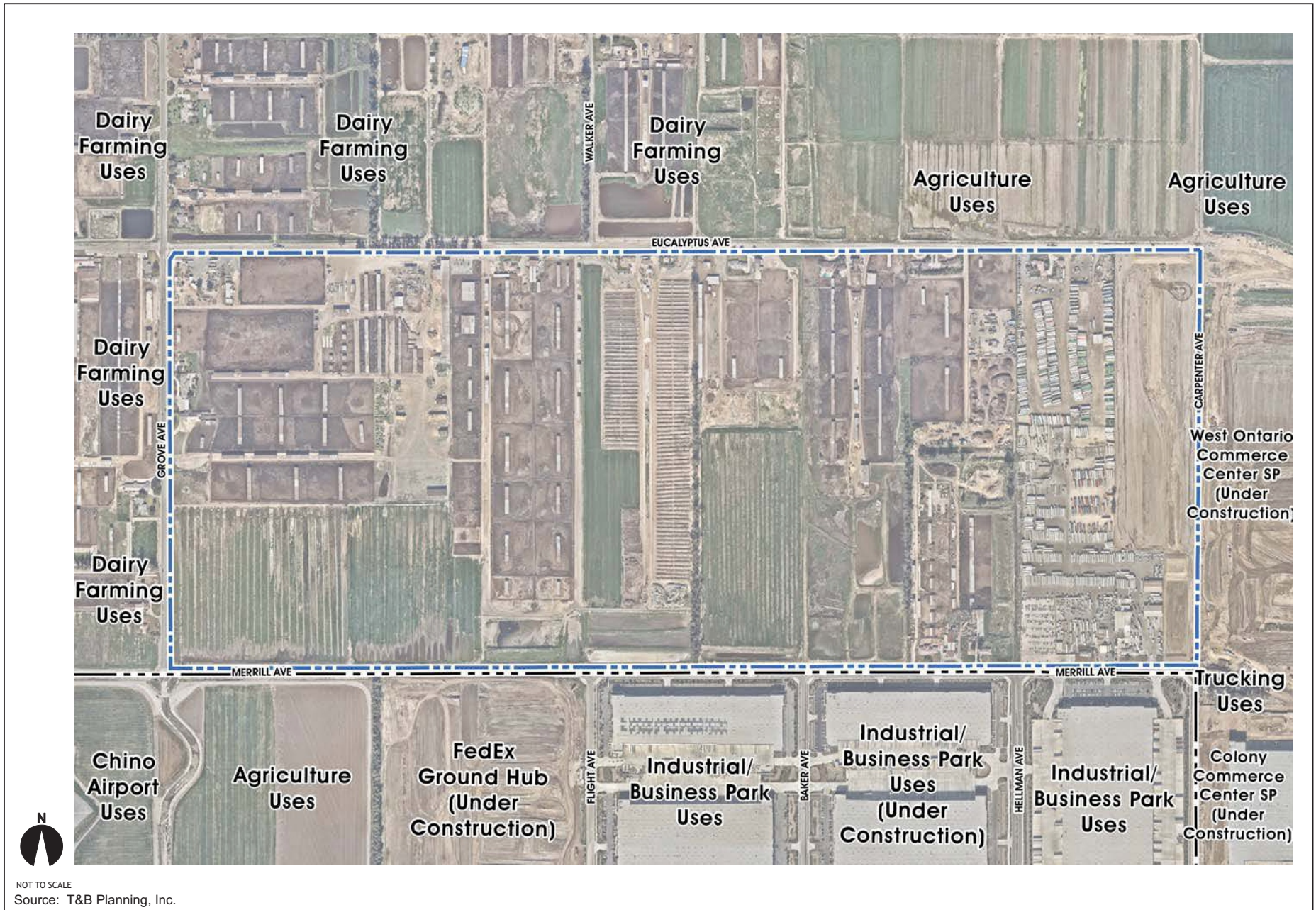


Figure 4.11-1
Existing Land Uses

Farmland

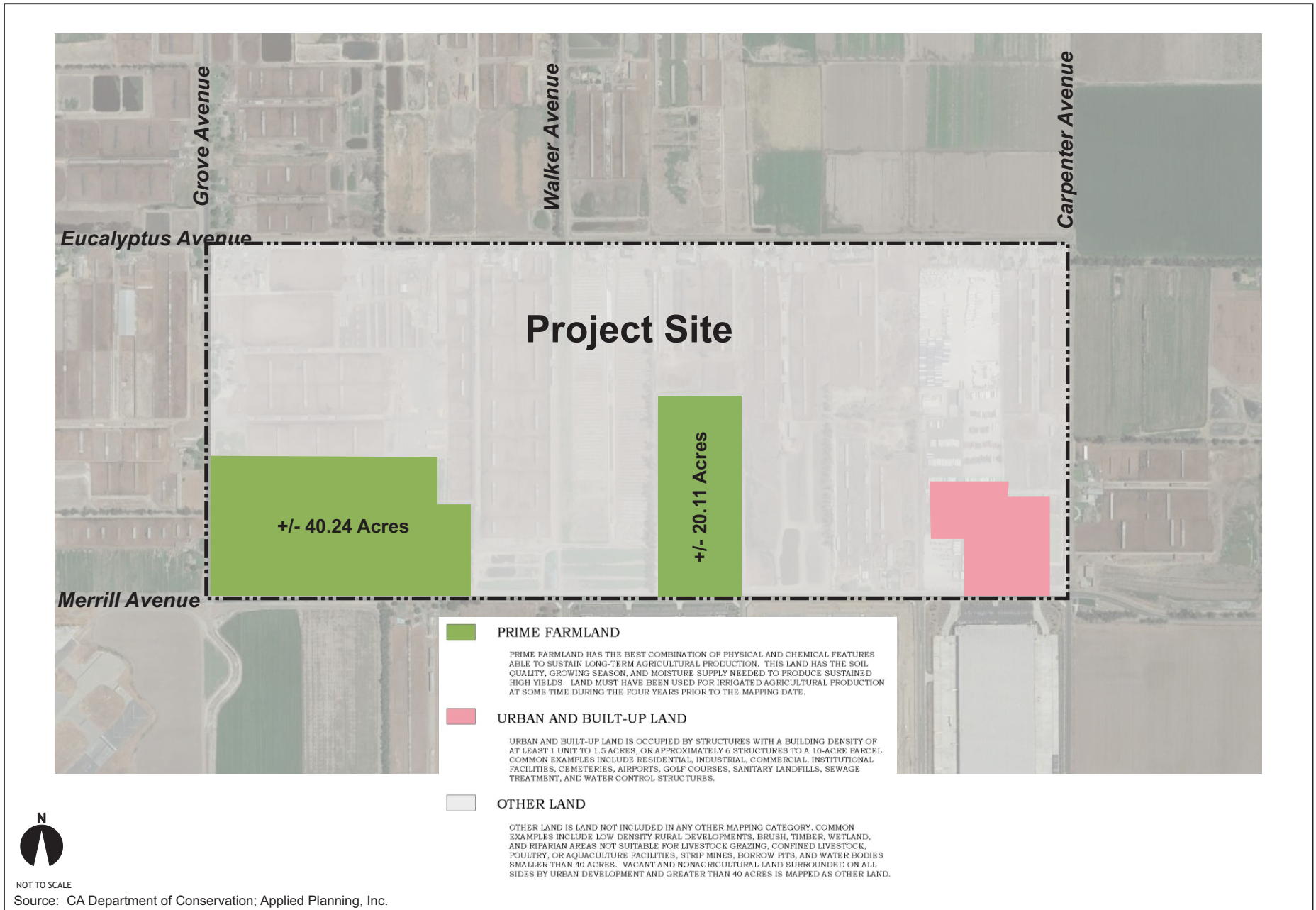
Approximately 60.35 acres within the Project site is categorized as “Prime Farmland” under the CDC Farmland Mapping and Monitoring Program (FMMP). The remainder of the Project site is categorized as “Other Land” and “Urban Built-Up Land.” Please refer also to Figure 4.11-2, *Project Site Farmland Mapping Designations*. FMMP Farmland Categories are described further at subsequent Section 4.11.3.1.

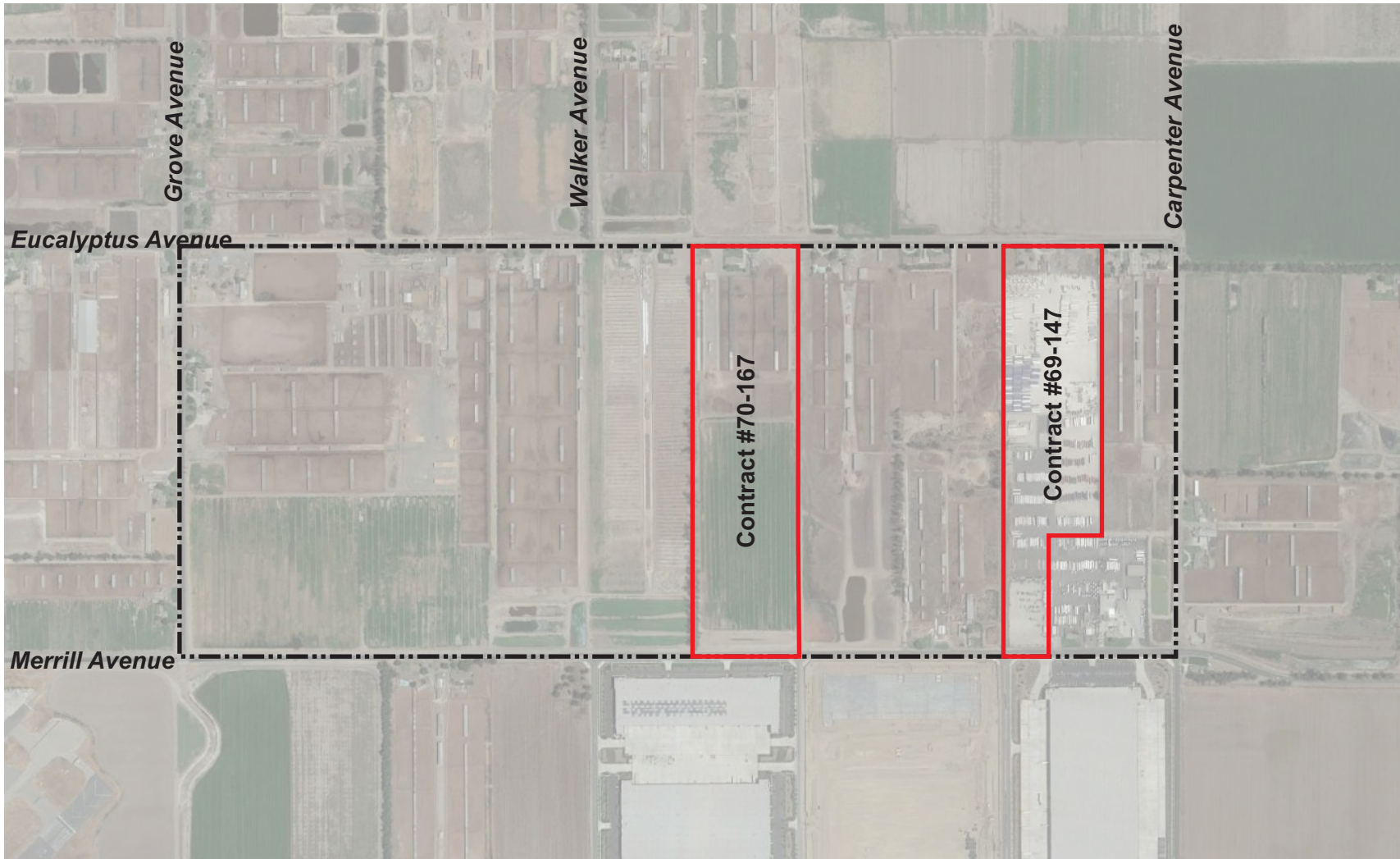
Williamson Act Contract Properties

The California Land Conservation Act of 1965 (the Williamson Act, Government Code Sections 51200 through 51297.4) encourages the preservation of agricultural lands through tax incentives due to the increasing trend toward the conversion of agricultural lands to urban uses. The act enables counties and cities to designate agricultural preserves (Williamson Act lands) and within these preserves offer preferential taxation to agricultural landowners based on the agricultural income-producing value of the property.

The City indicates that there is an active Williamson Act Contract (Contract #69-147, initiated in 1973) on APN 0218-261-35, a 29.05-acre property. Location of this property is identified at Figure 4.11-3. This property is currently developed as a commercial trucking operation, and is not used for agricultural purposes.

Another Williamson Act Contract (Contract #70-167, initiated in 1970) appears on title for APNs 1054-151-02, 1054-161-02, 1054-161-03, 1054-201-02 and 1054-351-02. However, a notice of non-renewal was recorded in 2017, starting the process to terminate this Contract. The subject properties are partially developed with farmland, as discussed herein. Locations of these properties are identified at Figure 4.11-3.





NOT TO SCALE
Source: Google Earth; Applied Planning, Inc.

Figure 4.11-3
Williamson Act Properties

4.11.3 REGULATORY SETTING

4.11.3.1 California Department of Conservation Farmland Mapping and Monitoring Program

The California Department of Conservation established the Farmland Mapping and Monitoring Program (FMMP) in 1982. The FMMP is a non-regulatory program that is intended to provide an impartial analysis of agriculture land use and land use changes throughout California. The FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources. The maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. The program rates agricultural lands according to physical characteristics and other factors such as irrigation status. FMMP Farmland Categories are described at Table 4.11-3.

**Table 4.11-3
Farmland Categories**

| Classification | Description |
|----------------------------------|---|
| Prime Farmland | Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. |
| Farmland of Statewide Importance | Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. |
| Unique Farmland | Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. |
| Farmland of Local Importance | Farmland of Local Importance is land of importance to the local economy, as defined by each county's local advisory committee and adopted by its Board of Supervisors. Farmland of Local Importance is either currently producing, or has the capability of production; but does not meet the criteria of Prime, Statewide or Unique Farmland. Authority to adopt or to recommend changes to the category of Farmland of Local Importance rests with the Board of Supervisors in each county. Within San Bernardino County, Farmlands of Local Importance include areas of soils that meet all the characteristics of Prime, Statewide, or Unique and which are not irrigated. Farmlands of Local Importance also include |

**Table 4.11-3
Farmland Categories**

| Classification | Description |
|-------------------------|--|
| | farmlands not covered by above categories but are of high economic importance to the community. These farmlands include dryland grains of wheat, barley, oats, and dryland pasture. |
| Grazing Land | Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. |
| Urban and Built-up Land | Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. |
| Other Land | Other Land is defined as land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than forty acres is mapped as Other Land. |

Source: California Department of Conservation, Farmland Mapping and Monitoring Program, <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>

As summarized by the CDC, “[f]or environmental review purposes under CEQA, the categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land constitute ‘agricultural land’ (Public Resources Code Section 21060.1). The remaining categories are used for reporting changes in land use as required for FMMP’s biennial farmland conversion report.”⁵

4.11.3.2 California Land Conversion Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (the Williamson Act, Government Code Sections 51200 through 51297.4) encourages the preservation of agricultural lands through tax incentives due to the increasing trend toward the conversion of agricultural lands to urban uses. The act enables counties and cities to designate agricultural preserves

⁵ California Department of Conservation. “Important Farmland Categories.” Accessed September 4, 2019. <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>.

(Williamson Act lands) and within these preserves offer preferential taxation to agricultural landowners based on the agricultural income producing value of the property.

This approach ties real estate tax rates to the agricultural value of the land rather than the market rate, which can escalate rapidly as areas around a farm or dairy convert to urban uses. In return for the preferential tax rate, the landowner is required to sign a contract with the county or city agreeing not to develop the land with non-agricultural uses for a minimum of ten years. On the anniversary date of the contract, the contract is renewed automatically unless a notice of non-renewal or petition for cancellation is filed.

Under limited circumstances and conditions, Williamson Act contracts may be cancelled, as set forth at Government Code (GC) §51280 et seq. In such cases, landowners may petition the City for Williamson Act contract cancellation. The City may grant tentative cancellation only if it makes required statutory findings (GC §51282(a)). If the required findings are met, the landowner is required to pay a cancellation fee, normally equal to 12.5 percent of the cancellation valuation (unrestricted fair market value) of the property (GC §51283(b)). The City's Williamson Act contract non-renewal/cancellation application and summary description of the City's non-renewal/cancellation process can be accessed at: www.ontarioca.gov/government-departments-development-planning/applications-and-documents.

4.11.3.3 Policy Plan, Environmental Resources Element

The Policy Plan, Environmental Resources Element establishes the following Policies that act to support existing agricultural operations as transitional land uses within the City.

ER5-3 *Right to Farm.* We support the right of existing farms to continue their operations within the New Model Colony.

ER5-4 *Transition of Farms.* We protect both existing farms and sensitive uses around them as agricultural areas transition to urban uses.⁶

The cited Policies also promote land use compatibility as the City continues to urbanize pursuant to The Ontario Plan Land Use Plan (Land Use Plan).

4.11.3.4 City of Ontario Development Code: Agricultural Overlay Zone in the Ontario Ranch [New Model Colony] Area

The City has adopted an Agricultural (AG) Overlay Zone or Right to Farm ordinance for the Ontario Ranch area. As described in the City of Ontario Development Code:

The AG Overlay District is hereby established to accommodate the continuation of agricultural uses within the City, on an interim basis, until such time that development is slated to occur consistent with the Policy Plan component of The Ontario Plan and the underlying zoning district. Furthermore, it is the intent of this Overlay District to permit continued agricultural use of properties or to establish general agricultural uses, including dairies, which are appropriate for areas of concentrated agricultural uses. The AG Overlay District is consistent with, and implements, all land use designation of the Policy Plan component of The Ontario Plan (Development Code, Division 5.01 – Zoning Districts and Boundaries, F. Overlay Districts, 1. AG [Agricultural] Overall District).

Under the provisions of the AG Overlay District, existing agricultural uses and agricultural support uses are allowed to continue. It is the intent of the City not to prohibit or discourage continued agricultural uses until a Specific Plan for urban development is approved and development occurs. Each Specific Plan is required to address the appropriate transition of the area from agricultural uses to urban uses and include

⁶ City of Ontario. (n.d.). Ontario Plan » ER5 Biological, Mineral & Agricultural Resources. Retrieved March 26, 2019, from <http://www.ontarioplan.org/policy-plan/environmental-resources-element/er5-biological-mineral-agricultural-resources/>

provisions for buffering between such use as needed to protect agricultural uses as well as the new urban uses.⁷

4.11.4 STANDARDS OF SIGNIFICANCE

Appendix G of the *CEQA Guidelines* indicates a project will have a potentially significant impact on agricultural resources if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;⁸
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));
- Result in the loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

⁷ City of Ontario. (2019). *FAQs*. Retrieved from <https://www.ontarioca.gov/planning/ontario-ranch/faqs>

⁸ The *CEQA Guidelines* do not specifically consider impacts to Farmlands of Local Importance. This farmland classification is however recognized here. There are no designated Farmlands of Local Importance within the Project site. The Project would not otherwise adversely affect any designated Farmlands of Local Importance.

4.11.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.11.5.1 Introduction

The following discussions focus on topical areas and issues where it has been determined pursuant to the EIR Initial Study/NOP processes, that the Project may result in or cause potentially significant agricultural resources impacts. As substantiated in the Initial Study (EIR Appendix A), under the following topics, the Project was determined to have no impact. On this basis, the following topics are not further discussed here:

- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));
- Result in the loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

All other CEQA topics concerning the Project's potential agricultural resources impacts are discussed below. Please also refer to Initial Study Checklist Item II., *Agriculture and Forest Resources*.

4.11.5.2 Impact Statements

Potential Impact: *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.*⁹

⁹ Ibid.

Impact Analysis: The California Department of Conservation’s farmland mapping system indicates that approximately 60.35 acres within the Project site are designated by the CDC as “Prime Farmland.” The majority of the Project site is CDC-designated “Other Lands.” At the southeasterly corner of the Project site, properties are CDC-designated “Urban and Built-Up Land.” Please refer to Figure 4.11-2, *Project Site Farmland Mapping Designations*. See also: <https://www.conservation.ca.gov/dlrp/fmmp>.

The City of Ontario does not prohibit transition of agricultural land to urban uses. While existing agricultural uses are allowed to persist and are accommodated as transitional uses under the City’s Agricultural Overlay District, the Land Use Plan does not formally designate or allocate any areas of the City as “Agricultural” land uses.¹⁰

The City of Ontario has previously acknowledged the planned transition of existing agricultural uses to urbanized uses pursuant to the Land Use Plan. In this regard, The Ontario Plan EIR notes that the City determined via the *Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment EIR* (SCH No. 1997061035) that implementation of the Ontario Ranch land uses would result in conversion of agricultural lands to non-agricultural purposes; and that this conversion was a significant and unavoidable agricultural resources impact (The Ontario Plan EIR, p. 5.2-9).

The Ontario Plan EIR notes further that implementation of the Land Use Plan would potentially convert all 3,269.3 acres of the City’s Important Farmlands to non-farmland uses (The Ontario Plan EIR, p. 5.2-9). The Ontario Plan EIR concluded that agricultural resources impacts and conversion of the City’s Important Farmlands to non-farmland uses resulting from implementation of The Ontario Plan would be a significant and unavoidable impact (The Ontario Plan EIR, p. 5.2-14). In certifying the *Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment EIR*, and The Ontario Plan EIR, the Ontario City Council adopted Statements of Overriding Considerations acknowledging significant and unavoidable impacts to agricultural

¹⁰ The Ontario Plan Land Use Plan does however accommodate agricultural lands comprising the 200-acre Southern California Land Foundation (SoCALF) Preserve, owned by the County of San Bernardino.

resources including loss of Farmland that would result from implementation of The Ontario Plan and Ontario Ranch land uses.

The Project considered herein would result in loss of Farmland and conversion of agricultural lands to non-agricultural uses. However, loss of on-site Farmland and conversion of on-site agricultural lands resulting from the Project have already been considered and addressed in the *Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment* EIR, and The Ontario Plan EIR. The Project would not result in impacts to on-site agricultural uses and Farmland not already considered and addressed in the *Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment* EIR, and The Ontario Plan EIR.

Additionally, potential agricultural resources impacts resulting from construction of off-site master plan infrastructure improvements supporting the Project have been previously considered and addressed in *Initial Study and Mitigated Negative Declaration City of Ontario Infrastructure Master Plans* (City of Ontario) July 2012 (Infrastructure Master Plans MND). As discussed in the Infrastructure Master Plans MND, potential agricultural resources impacts resulting from the construction of master plan infrastructure improvements would be limited, as the improvements would be constructed within existing improved streets or otherwise disturbed properties. Further, the Infrastructure Master Plans MND concluded that construction of master plan infrastructure improvements would not result in impacts to agricultural resources not already considered and addressed in The Ontario Plan EIR (Infrastructure Master Plans MND, p. 3-3). Master plan infrastructure improvements constructed in support of the Project would not result in impacts to agricultural uses not already considered and addressed in the Infrastructure Master Plans MND.

Moreover, the Project would implement provisions of the Merrill Commerce Center Specific Plan document and City Development Code that require buffering of, and separation between, agricultural and urban uses. These requirements support the City's planned orderly transition of existing agricultural uses to urban uses. Requirements include, but are not limited to:

- Appropriate buffering and separation of potentially incompatible uses through setbacks and screening, as discussed at Specific Plan Chapter 6 *Design Guidelines* and Specific Plan Appendix A *Policy Plan Consistency*.
- City of Ontario Development Code requirements including a minimum 100 foot separation between “a new residential, commercial or industrial development or structure used for public assembly and an existing animal feed trough, corral/pen or an existing dairy/feed lot including manure stockpiles and related wastewater detention basins” (Development Code Chapter 6 *Development and Subdivision Regulations*, p. 6.01-63).

Level of Significance: *Potentially Significant*. Implementation of the Project would result in the conversion of approximately 60.35 acres of on-site Prime Farmland to urban uses. Conversion of the Project site to urban uses would also generally diminish agricultural production within the region.

Consistent with the findings of the *Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment EIR*, The Ontario Plan EIR, this is considered a significant and unavoidable impact. Additional conversion of off-site agricultural lands to non-agricultural purposes could also occur as a result of construction of master plan infrastructure improvements supporting the Project. As discussed in the Infrastructure Master Plans MND, construction of master plan infrastructure improvements would not result in impacts to agricultural resources not already considered and addressed in The Ontario Plan EIR.

Mitigation Measures: *No Feasible Mitigation Measures*. The Ontario Plan envisions the City buildout condition comprising urban mixed-use, commercial, industrial, and residential land uses. The Ontario Plan vision does not support the continuation of existing agricultural uses. In this latter regard, existing agricultural uses within the City are becoming economically unsustainable and represent land uses that are increasingly incongruous with continuing urbanization of the City.

Transition of existing agricultural uses and Farmland to non-agricultural uses is an unavoidable effect of implementing The Ontario Plan. The Ontario Plan EIR considered various mitigation measures that could reduce impacts to agricultural resources and Farmland resulting from implementation of The Ontario Plan, but concluded that there are no feasible measures that would reduce these impacts to levels that would be less-than-significant.

As discussed below, the Ontario Plan EIR measures as they would apply to the Project would not reduce the Project's impacts to agricultural uses and Farmland to levels that would be less-than-significant. Project impacts to agricultural uses and Farmland would, as with impacts resulting from The Ontario Plan in total, be significant and unavoidable.

Ontario Plan EIR Mitigation Measure: Retention of On-Site Agricultural Uses

Retention of agricultural uses within the City of Ontario would create or maintain islands of agricultural uses within an urbanized setting, exacerbating potential land use conflicts and land use incompatibilities. Moreover, The Ontario Plan does not envision long-term use of City properties for agricultural purposes.¹¹ This is evidenced in the adopted Land Use Plan, which does not establish or maintain any "Agricultural" Land Use designations within the City. Preservation of agricultural land uses would therefore conflict with the adopted Land Use Plan. The "Retention of On-Site Agricultural Uses" mitigation strategy would require comprehensive amendment of the Policy Plan.

Additionally, economic viability of agricultural uses in the City has declined as a result of losing many of the necessary support services. Increasing urbanization, rising land values, and relatively high operational costs have also put City agricultural and dairy farming uses at a competitive disadvantage in regional markets. Ultimately, the long-term viability of agriculture within the City is limited due to the increasing land values, increased water costs, higher labor costs, higher property taxes, competition from other

¹¹ County of San Bernardino SoCALF Preserve properties would however be maintained.

parts of the state, and the growing urbanization of the area. Based on the preceding, retention of on-site agricultural uses is considered infeasible.¹²

Ontario Plan EIR Mitigation Measure: Replacement of Agricultural Resources Off-Site

Replacement of agricultural resources at an off-site location would require the Applicant to purchase off-site replacement acreage not designated as Farmland, and improve or restore it to Farmland status. Creation of additional Farmland in the City is contrary to the Land Use Plan policies and vision as summarized previously, and would require comprehensive amendment of the Policy Plan.

Further, creation of new Farmland-status properties outside the City is beyond the Lead Agency and Applicant control. The Farmland status at any site would be assigned through the California Department of Conservation Farmland Mapping and Monitoring Program *Important Farmland Series* mapping protocol. Moreover, creation of new Farmland-status properties at extra-jurisdictional locations could result in land use conflicts at the interface of agricultural uses and urban uses similar to those the City has experienced, and seeks to avoid through implementation of the Land Use Plan.

Additionally, the “Replacement of Agricultural Resources Off-Site” mitigation strategy would likely result in potentially adverse environmental impacts including, but not limited to, impacts to biological resources, hydrology/water quality, air quality, greenhouse gas emissions, and land use and planning. Specifically considering potential relocation/replacement of the site’s existing dairy farm uses, adverse effects accompanying these uses typically includes animal waste and associated creation methane gas, as well as soil contamination from nitrates and ammonia. Additionally, dairy operations use formaldehyde, iodine, and glycerol to wash the cows. Dairies also use muriatic acid and chlorinated alkaline as a cleaning solution. Pesticides are applied to prevent parasite infestations. Wastewater from these processes is discharged to pastures for irrigation. Potential soil contamination and infiltration of contaminated water to underlying groundwaters may result. As indicated, the mitigation strategy

¹² City of Ontario General Plan EIR, Section 5.2, *Agricultural Resources*, p. 5.2-12.

would likely result in increased, rather than diminished environmental impacts. Based on the preceding, replacement of agricultural resources at off-site locations is considered infeasible.

Ontario Plan EIR Mitigation Measure: Relocation of Farmland Topsoil

Relocation of Farmland topsoil would entail removal of the top 12 to 18 inches of topsoil from Farmland properties and the placement of this soil at sites that have lesser quality soil. This would promote creation of new or additional Farmland status properties in the City, rather than provide for their transition to urban uses. This would be contrary to the Land Use Plan policies and vision as summarized previously, and would require comprehensive amendment of the Policy Plan.

Further, creation of new Farmland-status by means of imported Farmland topsoil is beyond the Lead Agency and Applicant control. The Farmland status at any site would be assigned through the California Department of Conservation Farmland Mapping and Monitoring Program *Important Farmland Series* mapping protocol. Moreover, creation of new Farmland-status properties at extra-jurisdictional locations could result in land use conflicts at the interface of agricultural uses and urban uses similar to those the City has experienced, and seeks to avoid through implementation of the Land Use Plan.

Additionally, excavation and relocation of topsoil would likely result in potentially adverse environmental impacts affecting biological resources, hydrology/water quality, air quality, greenhouse gas emissions, and land use and planning. Based on the preceding, relocation of Farmland topsoil is considered infeasible.

Ontario Plan EIR Mitigation Measure: Establishment of Conservation Easement or Preserves

Establishment of new conservation easements or preserves within the City conflicts with the City General Plan Land Use Element. This measure would promote creation of new or additional Farmland status properties in the City, rather than provide for their transition to urban uses. Such new or additional easements or preserves within the City would locate agricultural uses amid the urbanizing City and could result in a new potentially significant land use conflicts and adverse impacts at the easement or

preserve/urban interfaces. Such adverse impacts would include noise and odor generated by agricultural uses that are typically incompatible with urban uses. In this regard, the General Plan EIR specifically notes that “when nonagricultural land uses are placed near agricultural uses, the odors, noises, and other hazards related to agriculture conflict with the activities and the quality of life of the people living and working in the surrounding areas” (General Plan EIR, p.5.2-10); and “[t]he current agricultural uses in Ontario include dairy and noncommercial poultry establishments and alfalfa, barley, strawberry, and other row crop farming. Dairy and poultry would have high impacts on surrounding land uses because of the high noise and odor levels associated with these types of agriculture” (General Plan EIR, p.5.2-13). It can be reasonably concluded that mitigation comprising new or additional conservation easement or preserves within the City would itself likely result in new and additional adverse environmental effects.

Further, the General Plan EIR notes that previous conservation easements have not been viable in Ontario, as shown by the SoCALF preserves, and it is unlikely that they would be successful in the future (General Plan EIR, p. 5.2-13). Lastly, the 1999 Certified EIR for the NMC [Ontario Ranch] established the policy of the City of Ontario to convert agricultural lands into nonagricultural uses.

The *Conservation Easement or Preserves* mitigation strategy would require comprehensive amendment to the Policy Plan. The City has not indicated that such amendment is warranted or desired, and has initiated no such action. At the Project site, establishment of agricultural conservation easements or preserves would negate the Project, resulting in a No-Build condition. Based on the preceding, the “Establishment of Conservation Easement or Preserves” mitigation strategy is considered infeasible.

Ontario Plan EIR Mitigation Measure: *Transfer of Development Rights*

The Southern California Association of Governments (SCAG) provides the following summary of description and application of Transfer of Development Rights (TDR) programs:

Transfer of development rights (TDR) “is a device by which the development potential of a site is severed from its title and made available for transfer to another location. The owner of a site within a transfer area retains property ownership, but not approval to develop. The owner of a site within a receiving area may purchase transferable development rights, allowing a receptor site to be developed at a greater density.”

TDR is most commonly used to preserve agricultural lands but it can also be used for preserving natural, open space. TDR programs can vary depending on the need of the local jurisdiction but in general there are a few common factors that contribute to the success of a TDR program. These include having a donor site with development constraints, appropriate zoning regulations, and infrastructure requirements.”¹³

The Project site is not currently entitled for development absent an adopted Specific Plan, and it is unclear what if any development rights would be transferred under a TDR program. Further, there is no designated or contemplated receiving area to accept these [undefined] development rights. Moreover, a TDR program would preserve agricultural uses at the Project site rather than further planned transition of agricultural uses to non-agricultural uses as envisioned under the Policy Plan. This would be contrary to the Land Use Plan policies and vision as summarized previously.

The City of Ontario has not implemented a TDR Program. Implementation of a TDR program would require amending the City Development Code and comprehensive amendment of the Policy Plan. Neither the City nor Applicant has indicated that such amendments are warranted or desired, and neither has initiated such actions. Based on the preceding, implementation of a “Transfer of Development Rights Program” mitigation strategy is considered infeasible.

¹³ Details - Transfer of Development Rights (TDR). (n.d.). Retrieved from <http://sustain.scag.ca.gov/Lists/Details/DispForm.aspx?ID=50>

As summarized above, there are no feasible mitigation measures that would reduce the Project's significant impacts to agricultural uses and Farmland to levels that would be less-than-significant. Further, conversion of agricultural lands and loss of Farmland resulting from the Project have already been considered and addressed in the *Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment EIR*, *The Ontario Plan EIR*, and the *Infrastructure Master Plans MND*. The Project would not result in significant impacts to agricultural resources or loss of Farmland not already considered and addressed in those documents.

Level of Significance After Mitigation: *Significant and Unavoidable*. As presented above, the Project would result in conversion of on-site Farmland to urban uses. Additional conversion of off-site agricultural lands to non-agricultural purposes could also occur as a result of construction of master plan infrastructure improvements supporting the Project. These are considered to be significant and unavoidable impacts. However, the Project would not cause or result in significant and unavoidable agricultural resources impacts and loss of Farmland impacts beyond those already considered and addressed in the *Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan Amendment EIR*, *The Ontario Plan EIR*, and the *Infrastructure Master Plans MND*. Nor would the Project otherwise result in new significant and unavoidable agricultural resources impacts and loss of Farmland that would not otherwise occur pursuant to the Land Use Plan.

Potential Impact: *Conflict with existing zoning for agricultural use, or a Williamson Act contract*.

Zoning for Agricultural Uses

The Project site is Zoned Specific Plan, with an Agricultural Overlay Zoning District. The site's current Agricultural Overlay District designation is intended to accommodate the interim continuation of agricultural uses within the City until such time that development is proposed consistent with the Policy Plan and the underlying Specific Plan zoning district. As discussed in *The Ontario Plan EIR*, development pursuant to the Land Use

Plan would have no impact on agricultural zoning designations (The Ontario Plan EIR, p. 5.2-10).

Because the Project would implement a Specific Plan development that would be consistent with the Policy Plan as amended under the Project, the Project similarly would have no impact on agricultural zoning designations. If the proposed Specific Plan is approved by the City, the site's current Agricultural Overlay designation would no longer be appropriate and would be removed.

Off-site master plan infrastructure improvements supporting the Project would not require any amendment to the Land Use Plan or area Zoning designations. These master plan improvements would therefore have no impact on agricultural zoning designations. This is consistent with analysis presented in the Infrastructure Master Plans MND (Infrastructure Master Plans MND, p. 3-3).

Based on the preceding, Project impacts related to a conflict with agricultural zoning would be less-than-significant.

Williamson Act Contracts

There is an active Williamson Act Contract (Contract #69-147, initiated in 1973) on APN 0218-261-35, a 29.05-acre property, and on APNs 1054-151-02, 1054-161-02, 1054-161-03, 1054-201-02 and 1054-351-02, which collectively make up a 37.35-acre property. Location of these properties is identified at previous Figure 4.11-3. As one of the Project requested discretionary actions, these existing Williamson Act Contracts will be cancelled.

APN 0218-261-35 is currently developed as a commercial trucking operation, and is not used for agricultural purposes, nor is the subject property designated as Farmlands. Cancellation of this Contract would have no effect on farmlands and would not result in conversion of agricultural uses to urban uses.

While a portion of APNs 1054-151-02, 1054-161-02, 1054-161-03, 1054-201-02 and 1054-351-02 comprise farmlands, the impact of conversion of these properties is fully disclosed,

discussed, and analyzed above. The cancellation of the Contract itself is not a significant impact, particularly in light of the previously-filed notice of nonrenewal. Rather, the proposed cancellation is consistent with the Policy Plan vision for the subject site and uses that would result from the Project, and any impact has been previously analyzed in The Ontario Plan EIR.

For all the above properties, cancellation(s) would comply with provisions and requirements identified at Government Code (GC) §51280 et seq. The City would be required to make the required statutory findings (GC §51282(a)). The landowner(s) would be required to pay the requisite cancellation fee(s). Cancellation of these active Contracts would preclude the potential for the Project to conflict with a Williamson Act Contract, and Project impacts in this regard would be less-than-significant.

Based on the preceding, the potential for the Project to conflict with existing zoning for agricultural use, or a Williamson Act contract would be less-than-significant.

Level of Significance: Less-Than-Significant.

4.12 UTILITIES AND SERVICE SYSTEMS

4.12 UTILITIES & SERVICE SYSTEMS

Abstract

This Section of the EIR addresses the Project's potential impacts to utilities and service systems. Specifically, the utilities and service systems analysis examines whether the Project would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;*
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;*
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;*
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or*
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.*

This EIR evaluates likely maximum impacts associated with all Project actions and operations, including but not limited to construction and operation of utilities and service systems distribution and conveyance lines. Construction and operation of the Project utilities and service

systems distribution and conveyance lines described in this Section would not result in conditions or environmental impacts not already considered and addressed elsewhere in this EIR. At properties adjacent to master plan infrastructure improvements implemented by the Project, construction-source noise impacts are recognized as significant and unavoidable (see: EIR Section 4.5, Noise). Additionally, conversion of off-site agricultural lands to non-agricultural purposes could result from construction of master plan infrastructure improvements supporting the Project. These impacts are recognized as significant and unavoidable (see: EIR Section 4.11, Agricultural Resources). Mitigation proposed in this EIR under other environmental topics would also address potential impacts associated with construction and operation of utilities and service systems. Other impacts associated with or resulting from construction of Project infrastructure improvements would be less-than-significant or less-than-significant as mitigated.

4.12.1 INTRODUCTION

For each of the utilities and service systems discussed, existing conditions are described, any improvements required to accommodate the Project are identified, and any resulting or associated impacts and required mitigation are discussed. The analysis is based on physical and operational attributes presented at EIR Section 3.0 *Project Description*; information presented in the City of Ontario Policy Plan (Policy Plan) and related environmental analyses; information provided by or available through the City of Ontario and County of San Bernardino; information presented in *Water Supply Assessment Merrill Commerce Center Specific Plan* (Placeworks) July 2019 (Project WSA); and provisions of the *Merrill Commerce Center Specific Plan* (T&B Planning, Inc.) September 29, 2020 (Specific Plan).

City of Ontario Policy Plan Policy LU4-3 *Infrastructure Timing* requires that necessary infrastructure and services be in place prior to or concurrent with new development. Similarly, the Merrill Commerce Center Specific Plan includes a development phasing plan and infrastructure phasing plan that require infrastructure supporting buildout of the Specific Plan be adequately phased concurrent with development (see: Specific Plan, p. A-6).

4.12.2 EXISTING CONDITIONS

4.12.2.1 Water Supply and Water Service

Water demands in the Project area are currently satisfied by private wells. Water distribution systems adequate to serve the Project are not currently available.

On a City-wide basis, the Ontario Municipal Utilities Company (OMUC) provides water service to residents, businesses, and other users in the City of Ontario. OMUC would provide domestic water service to the Project area as part of its masterplan for service to the 925 Pressure Zone.¹ Water distribution system improvements for the City and context of the Project within the City system are reflected in the City of Ontario Ultimate Water System (Figure 4.12-1). The City water master plan improvements have been designed to meet water service demands of the City under City General Plan Buildout Conditions (Buildout Conditions), including water service demands of the Project. Please refer also to related discussions presented in this Section under the discussion of potential water supply impacts. Water supply to the City of Ontario is derived from a combination of local and imported water, obtained primarily from four sources:

- Ontario wells and treatment in the Chino Groundwater Basin (Basin). The Basin is the primary source of water for the City, which currently receives approximately 70 to 80 percent of its water supply from this source;
- Chino Desalter Authority (CDA) wells and treatment in the Chino Groundwater Basin;
- Treated State Water Project from the Water Facilities Authority (WFA); and
- Recycled water from the Inland Empire Utilities Agency (IEUA), a member agency of the Metropolitan Water District of Southern California (MWD).

¹ The 925 Pressure Zone encompasses the majority of Ontario Ranch, including the Project site.

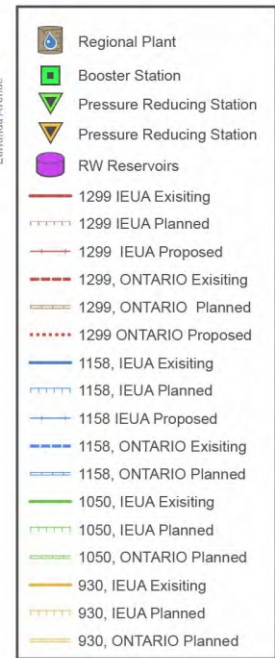
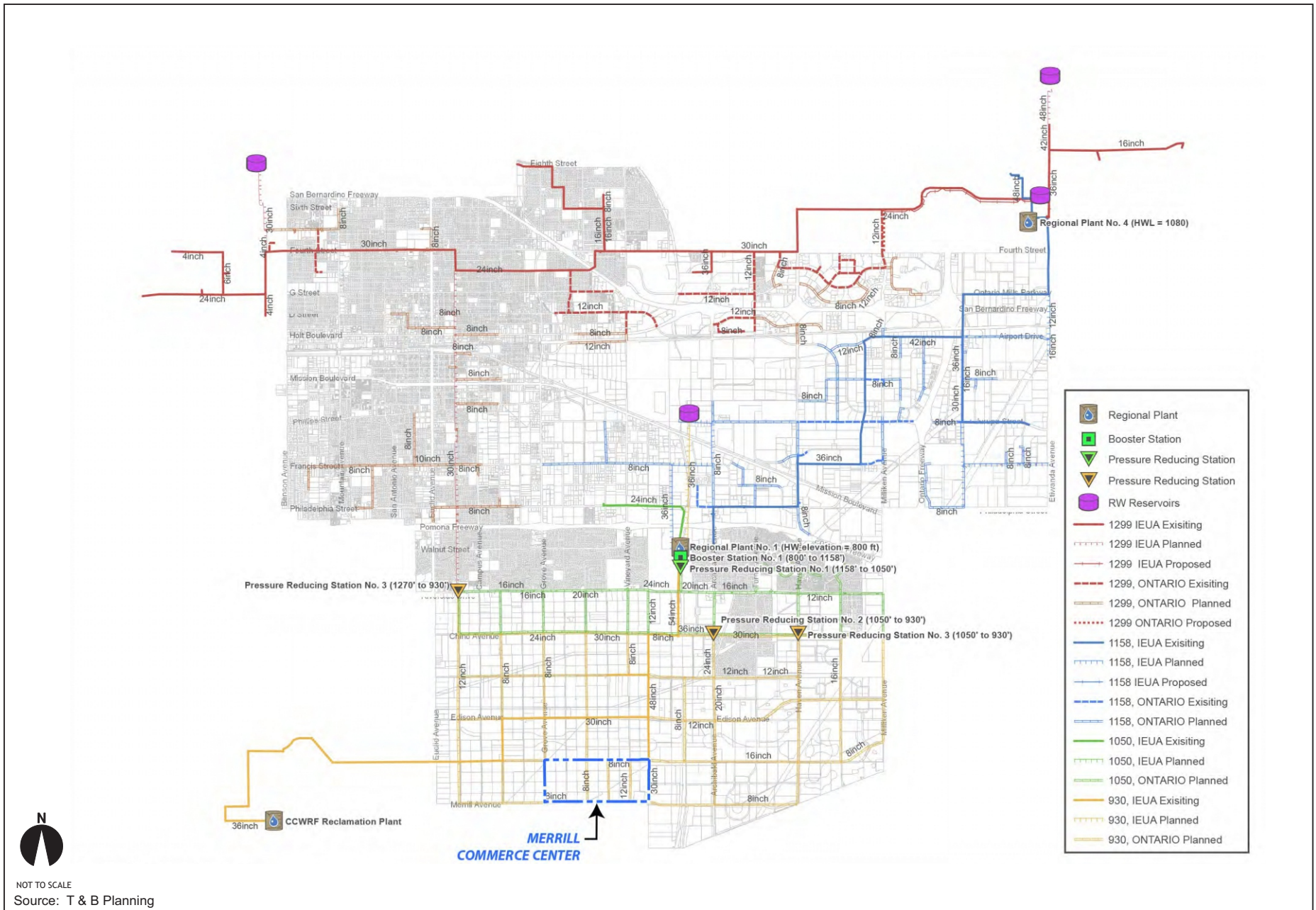
The City of Ontario 2015 Urban Water Management Plan (2015 UWMP) substantiates water supply adequacy to support the City under Buildout Conditions, including development proposed by the Project. The 2016 UWMP can be accessed at: https://www.ontarioca.gov/sites/default/files/Ontario-Files/Municipal-Utilities-Company/2015_urban_water_management_plan_0.pdf.

In the vicinity of the Project, recycled water infrastructure is located in Carpenter Avenue, Eucalyptus Avenue, and Merrill Avenue. Recycled water supplied to the Project would be provided by OMUC. OMUC recycled water supplies are produced by IEUA from IEUA's four wastewater reclamation plants. The Project site and surrounding properties lie within the City's Master Plan 930 Pressure Zone. Context of the Project within the City of Ontario Future Recycled Water System is presented at Figure 4.12-1A.

4.12.2.2 Wastewater Collection and Wastewater Treatment

The Project area is not currently served municipal sewers or municipal wastewater treatment systems. Wastewater disposal and treatment is currently accomplished via private sewage disposal fields (septic tanks and subsurface disposal fields).

Developed areas of the City served by the municipal sewer system convey wastewater via regional trunk sewers to regional treatment plants operated by IEUA. Wastewater collection system improvements for the City and context of the Project within the system are reflected in the City of Ontario Ultimate Sewer System (Figure 4.12-2). The City sewer master plan improvements have been designed to meet wastewater conveyance demands of the City under City Buildout Conditions, including wastewater conveyance demands of the Project.



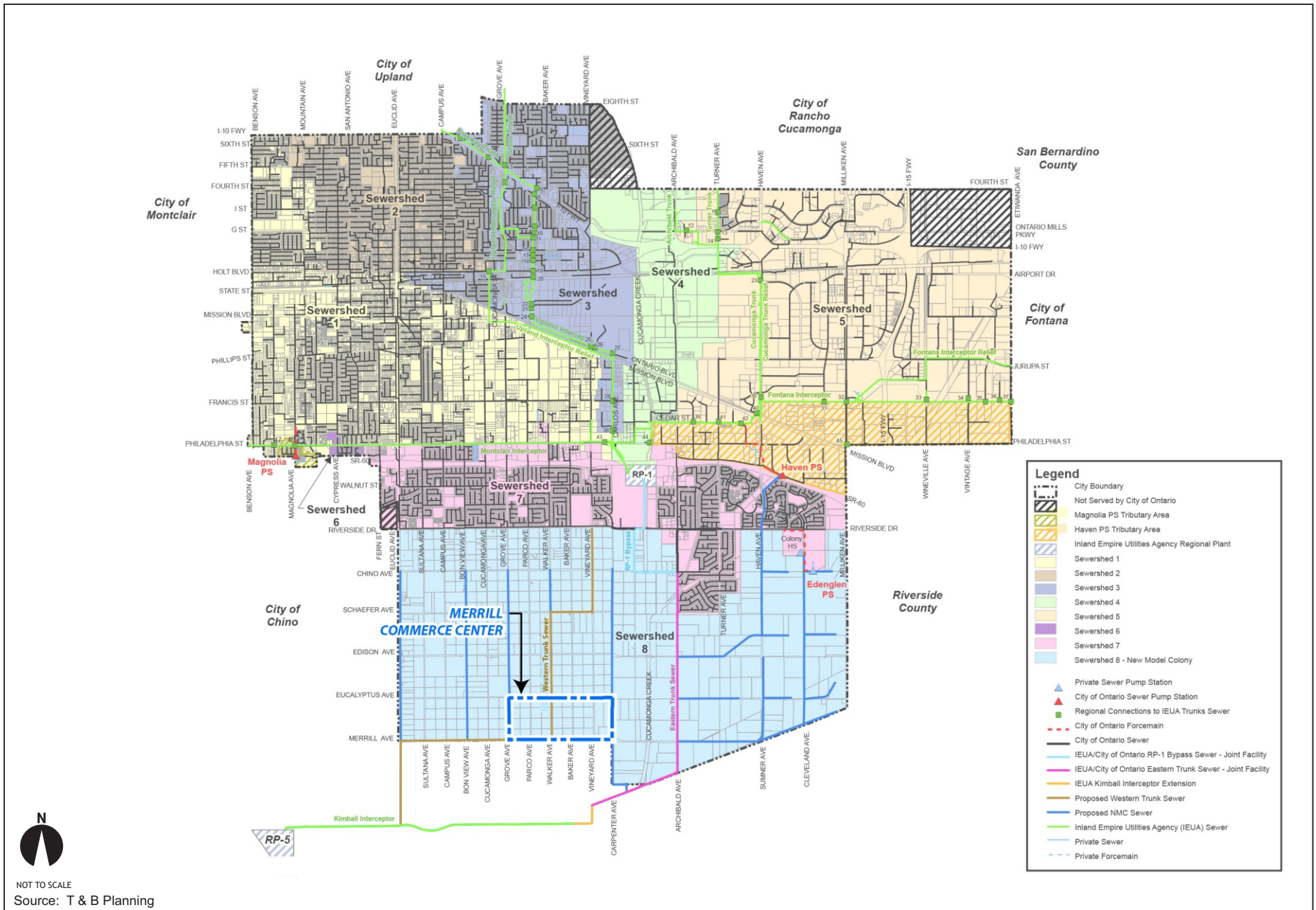


Figure 4.12-2
City of Ontario Sewer Master Plan

Wastewater generated within the City is treated at IEUA's Regional Water Recycling Plants No. 1 and 5. Regional Water Recycling Plant No. 1 has a capacity of 44 million gallons per day (mgd). Current average influent wastewater flows at Regional Water Reclamation Plant No. 1 are approximately 28 mgd.² Regional Water Reclamation Plant No. 5 has a capacity of 16.3 mgd, with daily average influent flows of 9 mgd.³ IEUA treats wastewater at both plants to meet discharge requirements and Title 22 water quality standards for reuse as recycled water.

IEUA also operates the Non-Reclaimable Wastewater (NRW) System. Description of the NRW System is presented below.

The NRW System conveys high strength wastewater and exports it to treatment facilities in Los Angeles and Orange counties for eventual discharge to the Pacific Ocean. Wastewater discharged to the NRW System consists mainly of industrial and groundwater treatment brines. Discharging to the NRW System instead of the Agency's treatment plants keeps salt out of the recycled water, ensuring that the Agency meets the Total Dissolved Solids (TDS) and total nitrogen limits listed in the National Pollutant Discharge Elimination System (NPDES) permits. This enables us to fully utilize recycled water, ensuring a reliable water supply for the region.

The NRW System consists of three trunk lines: NRWS and Etiwanda Wastewater Line (EWL) on the Agency's north service area convey the wastewater to the County Sanitation Districts of Los Angeles County's sewer system; and the Inland Empire Brine Line (also known as the Santa Ana Regional Interceptor – SARI) in the Agency's south service area conveys the wastewater from the Santa Ana Watershed to the Orange County Sanitation District's sewer system.

² Inland Empire Utilities Agency. "Regional Water Recycling Plant No. 1." *Inland Empire Utilities Agency | Water Smart - Thinking in Terms of Tomorrow*. www.ieua.org/facilities/rp-1/. Accessed 28 Aug. 2019.

³ ---. "Regional Water Recycling Plant No. 5." *Inland Empire Utilities Agency | Water Smart - Thinking in Terms of Tomorrow*. www.ieua.org/facilities/rp-5/. Accessed 28 Aug. 2019.

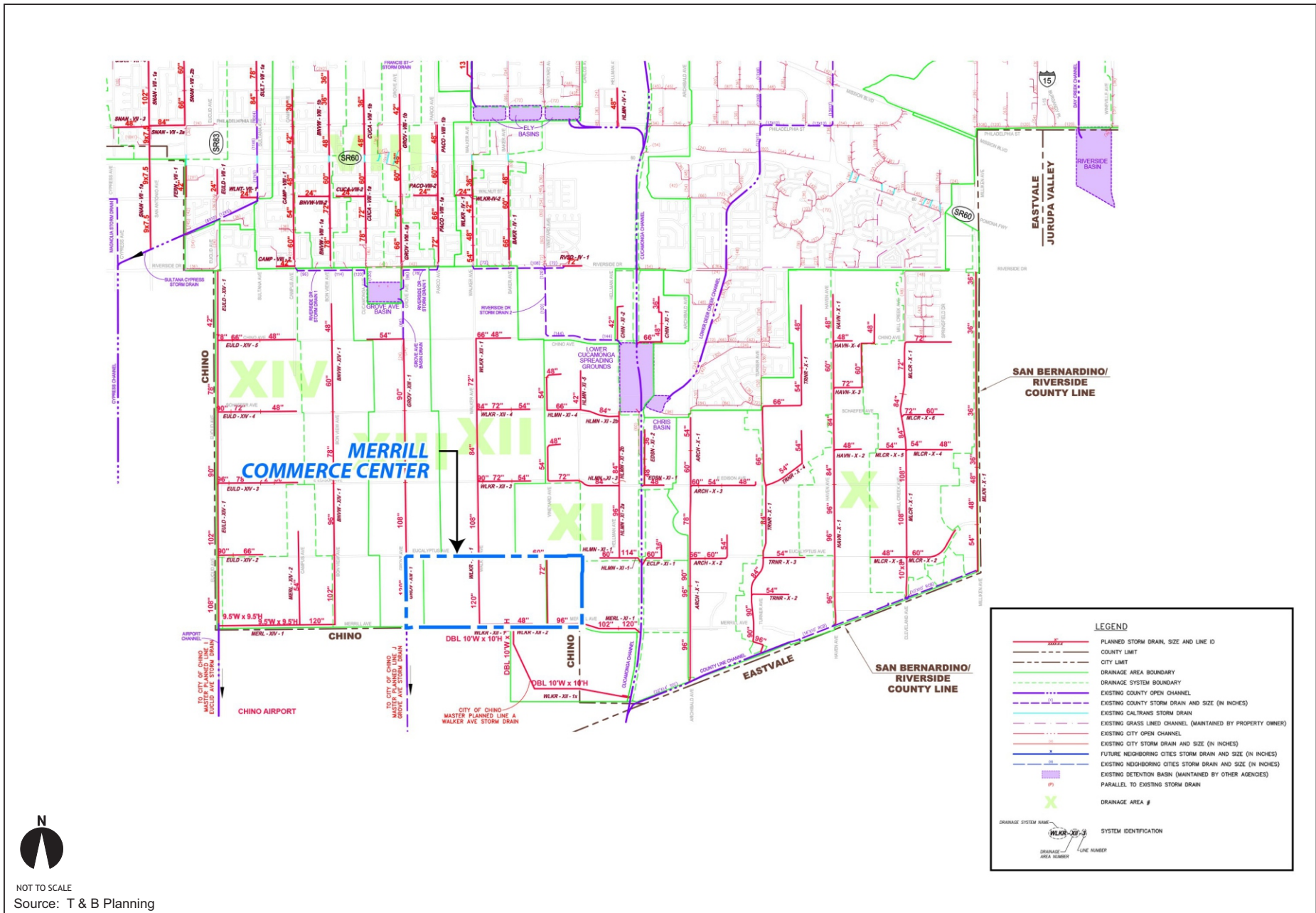
The highest and best use of the Brine Line is the removal of salts from the Watershed to keep them from degrading water quality within the Watershed, thereby allowing better use of groundwater resources and expanding the ability to reclaim water. The long-term goal of achieving salt balance within the region depends on the ability to remove salts from the watershed via the Brine Line. Further use of desalters depends on an economical means of salt disposal and ultimately will depend on an economically viable regional IE Brine Line.⁴

4.12.2.3 Storm Water Management

With the exception of regional drainage channels, the existing stormwater management system within Ontario Ranch, including the Project site, is generally unimproved, comprising primarily open earthen swales along roadways or curbed roadway surfaces. The Project site currently evidences dairy farm/cattle operations, cattle stockades, cattle and dairy farming support equipment, bio-retention basins associated with dairy farms, and residences appurtenant to dairy farm/cattle operations. The easterly portion of the Project site accommodates trucking operations and is developed with light industrial/commercial buildings and paved truck trailer parking/storage areas.

Stormwater management system improvements for the City are reflected in the City of Ontario Planned Drainage Facilities (EIR Figure 4.12-3). The City stormwater management system master plan improvements have been designed to serve stormwater management demands of the City under Buildout Conditions, including stormwater management demands of the Project. Please refer also to EIR Section 4.7, *Hydrology/Water Quality*.

⁴ ---. "Non-Reclaimable Wastewater System." Inland Empire Utilities Agency | Water Smart - Thinking in Terms of Tomorrow. www.ieua.org/water-sources/pretreatment-source-control/non-reclaimable-waste-system/. Accessed 28 Aug. 2019.



NOT TO SCALE
Source: T & B Planning

Figure 4.12-3
City of Ontario Planned Drainage Facilities

4.12.2.4 Solid Waste Management

As described in the Policy Plan EIR, “[h]ousehold and business refuse, green waste, and recycling from Ontario are sent to the West Valley Materials Recovery Facility (MRF) in Fontana for processing, recycling, or landfilling. The MRF is operated by West Valley Recycling and Transfer, and is under the administration of the San Bernardino County Department of Public Health (Policy Plan EIR, p. 5.17-29). Permitted throughput of the MRF is 7,500 tons/day.⁵

Most refuse is transported from the MRF to El Sobrante Landfill in the City of Corona (Policy Plan EIR, p. 5.17-29). City solid waste is also transported to The Badlands Sanitary Landfill. Receiving landfill information is presented at Table 4.12-1.

**Table 4.12-1
Receiving Landfill Information**

| Landfill | Remaining Capacity (million cubic yards) | Permitted Capacity (million cubic yards) | Permitted Throughput (tons per day) | Average Daily Throughput (2017) | Estimated Residual Daily Throughput Capacity | Estimated Closure Date |
|----------------------------|--|--|-------------------------------------|---------------------------------|--|------------------------|
| Badlands Sanitary Landfill | 15.7 | 34.4 | 4,800 | 2,139 | 2,661 | 1/1/2022 |
| El Sobrante Landfill | 144.0 | 209.9 | 16,054 | 10,855 | 5,199 | 1/1/2051 |
| Totals | 159.7 | 244.3 | 20,854 | 12,994 | 7,860 | --- |

Notes: Landfill Capacity, Permitted Throughput, and Closing Date Statistics from CalRecycle: <https://www2.calrecycle.ca.gov/SWFacilities/Directory>; Average daily throughput based on CalRecycle Landfill Summary Tonnage Reports for Badlands Sanitary Landfill and El Sobrante Landfill (2017, the latest full year of data reporting). Assumes 300 day per year landfill operations (landfills are open 6 days/week, holidays excluded) Total year 2017 disposal for El Sobrante = 3,256,447 tons/300 days= 10,855 tons per day. Total year 2017 disposal for Badlands = 641,708 tons/300 days = 2,139 tons per day.

4.12.2.5 Dry Utilities (electric power, natural gas, telecommunications, fiber optic)

Electric power, natural gas, telecommunications, and fiber optic services are generally available to the Project site and surrounding areas of Ontario Ranch. Utility purveyor currently service the Project area include:

⁵ CalRecycle. “SWIS Facility Detail.” *Home*, 2019, www2.calrecycle.ca.gov/SWFacilities/Directory/36-AA-0341/Detail/. Accessed 3 Sept. 2019.

- Southern California Edison (SCE) – Electric power;
- SoCalGas – Natural gas;
- Telecommunications – various private providers; and
- Fiber optic system – City of Ontario.

4.12.3 STANDARDS OF SIGNIFICANCE

Consistent with the standards of significance outlined in the *CEQA Guidelines*, public services impacts resulting from implementation of the Project could be considered potentially significant if they caused or resulted in any of the following:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; and
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.12.4 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.12.4.1 Introduction

The following discussions focus on areas where it has been determined that the Project may result in potentially significant utilities and service systems impacts, pursuant to comments received through the NOP process, and based on the analysis presented within this Section and included within the EIR Initial Study. All CEQA checklist considerations addressing utilities and service systems were determined to have potentially significant impacts warranting further analysis, and are discussed below. Please also refer to Initial Study Checklist Item XIX. *Utilities and Service Systems*.

4.12.4.2 Impact Statements

Potential Impact: *Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.*

Impact Analysis:

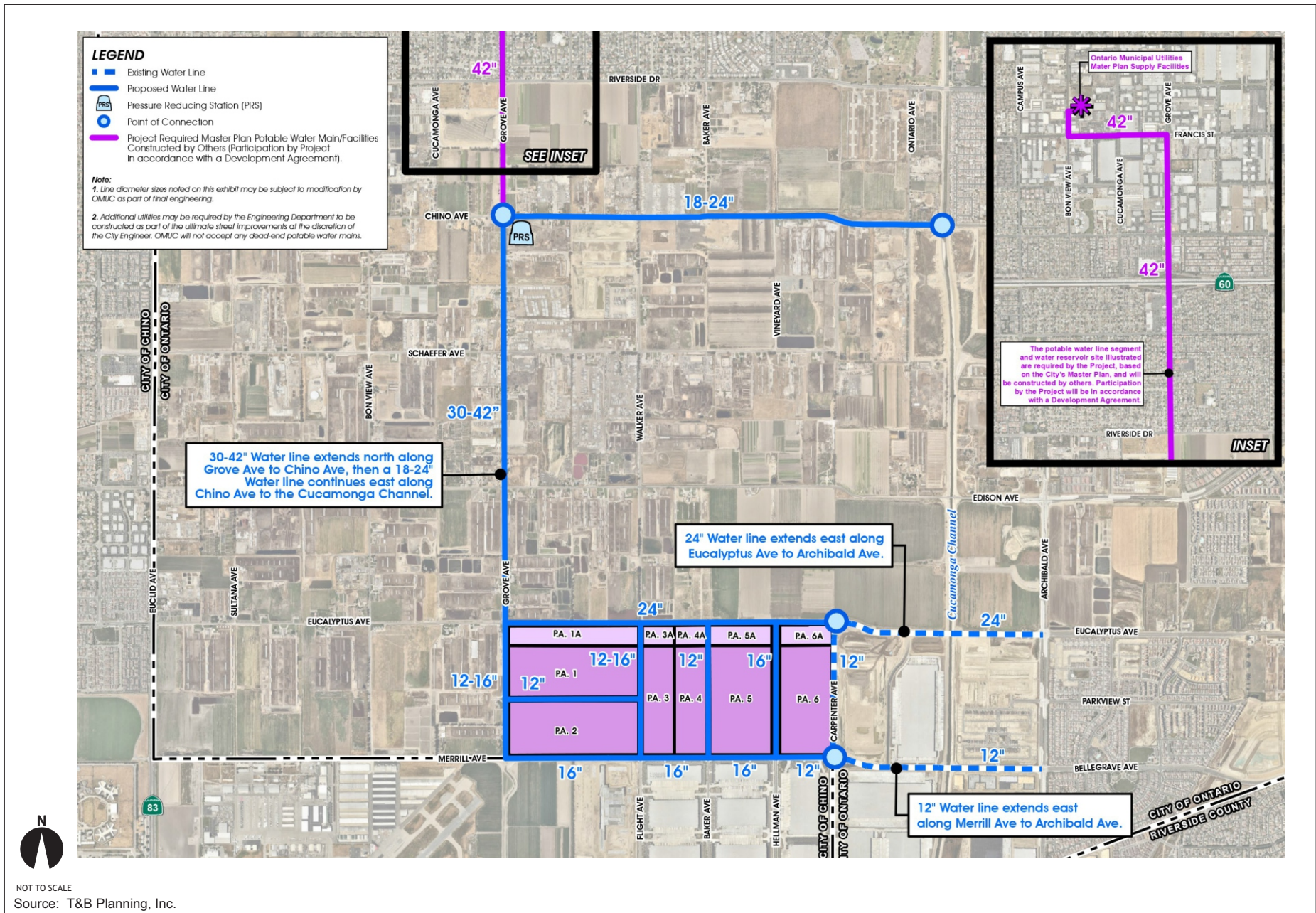
WATER SERVICE PLAN, SEWER SERVICE PLAN, DRY UTILITIES PLAN

The Project would construct utilities distribution/conveyance systems necessary to serve the Project. Concept water service plans, sewer service plans, and dry utilities plans (electric power, natural gas, telecommunications, fiber optic) are summarized below and are described in detail in the Specific Plan.

Water Service

Potable Water Plan

The Project Potable Water Plan Concept is presented at Figure 4.12-4. Potable water services to the Specific Plan area would be provided by the City of Ontario (Ontario Municipal Utilities Company, OMUC).



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 4.12-4
Conceptual Water Plan

The analysis presented here evaluates the likely maximum impacts attributable to implementation and operation of the Project Potable Water Plan.

Currently there are no City potable water mains or City potable water infrastructure in the vicinity of the Project. Potable Water System Improvements for the Specific Plan area require the planning, design, and construction of the 925 Pressure Zone (PZ) Phase 2 West Backbone, which includes:

- Extending the 24-inch potable water main in Eucalyptus Avenue from Carpenter Avenue to Grove Avenue;
- A 30-inch to 42-inch potable water main in Grove Avenue connecting from the 24-inch potable water main in Eucalyptus Avenue and extending to Chino Avenue;
- An 18-inch to 24-inch potable water main in Chino Avenue and connecting to the existing 18-inch potable water main located on the west side of the Cucamonga Creek Channel;
- A Pressure Reducing Station between the 1010 PZ and 925 PZ near the intersection of Grove Avenue and Chino Avenue.

Master Plan Phase 2 facilities that are required to serve the Project but that will be constructed by others include:

- A 42-inch potable water main in Grove Avenue connecting from the 30-inch potable water main in Grove Avenue at Chino Ave and extending to Francis Avenue;
- A 42-inch potable main in Francis Avenue connecting from the 42-inch potable water main in Grove Avenue and extending to Bon View Avenue;

- A 42-inch potable water main in Bon View Avenue connecting from the 42-inch potable water main in Francis Avenue and extending to the Bon View Avenue Reservoir site and to the Reservoir;
- A 9 million gallon reservoir on the Bon View Reservoir site, two 2,500 gpm wells with any treatment necessary to meet water quality standards and the 16-inch to 42-inch well collection mains from the wells to the reservoirs.

At the time the Specific Plan was prepared, the alignment of the 42-inch water line between Chino Avenue and the water reservoir site had not been finalized and is subject to change. The Project will be required to participate in the future Phase 2 Water System Improvements north of Chino Avenue, as detailed in the Development Agreement with the City.

In addition to the 925 Pressure Zone (PZ) Phase 2 West Backbone system described above, the Project would implement a Secondary Loop between the 925 Pressure Zone (PZ) Phase 2 West Backbone system and the Project site. These improvements would include:

- A 24-inch potable water main in Eucalyptus Avenue connecting to the 30-inch to 42-inch 925 Pressure Zone (PZ) Phase 2 West Backbone main in Grove Avenue;
- A 16-inch potable water main in Merrill Avenue connecting from the 12-inch to 16-inch potable water main in Grove Avenue and extending to Vineyard Avenue;
- A 16-inch potable water main in Vineyard Avenue connecting from the 16-inch potable water main in Merrill Avenue and extending to connect to the 24-inch potable water main in Eucalyptus Avenue; and
- A 12-inch potable water main in Merrill Avenue connecting from the 16-inch potable water main in Vineyard Avenue and extending east to connect to the 12-inch potable water main in Carpenter Avenue.

The Project would also construct the Local Adjacent Potable Water System. Improvements would include:

- A 12-inch to 16-inch potable water main in Grove Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue;
- A 12-inch to 16-inch potable water main in Walker Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue;
- A 12-inch potable water main in Baker Avenue connecting to the 24-inch potable water main in Eucalyptus Avenue and extending to connect to the 16-inch potable water main in Merrill Avenue; and
- A 12-inch potable water main in "Street A" connecting to the 12-inch potable water main in Grove Avenue and extending to connect to the 12-inch to 16-inch potable water main in Walker Avenue.

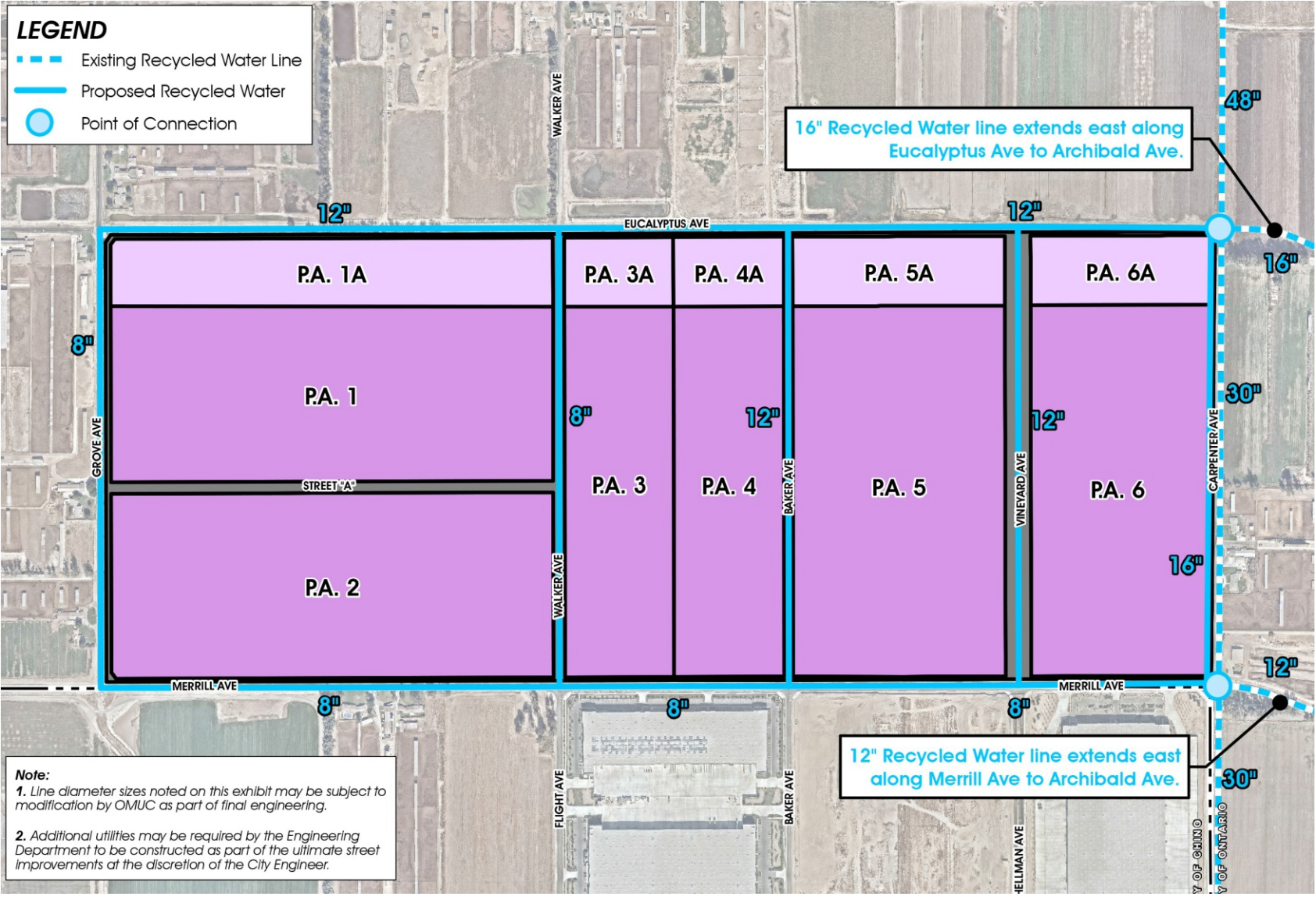
Water infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final designs. Orientation and configuration of water mains are also subject to change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including Inland Empire Utility Agency (IEUA) water mains, that do not meet minimum depths, standard alignment locations, and/or minimum horizontal and vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, all onsite potable water systems, non-potable water systems, and fire protection/suppression water systems shall be private and be privately-maintained.

Recycled Water Plan

The Project Recycled Water Plan Concept is presented at Figure 4.12-5. The analysis presented here evaluates the likely maximum impacts attributable to implementation and operation of the Project Recycled Water Plan. In the vicinity of the Project, existing City recycled water infrastructure is located in Carpenter Avenue, Eucalyptus Avenue, and Merrill Avenue. Recycled water supplied to the Project would be provided by OMUC. OMUC recycled water supplies are produced by IEUA from IEUA's four wastewater reclamation plants. The Project site and surrounding properties lie within the City's Master Plan 930 Pressure Zone.

The following Master Plan 930 Pressure Zone recycled water system improvements would be constructed as part of the Project:

- A 16-inch recycled water main in Carpenter Avenue connecting to the 16-inch 930 Pressure Zone Recycled Water main in Eucalyptus Avenue and extending it to connect to the 8-inch 930 Pressure Zone Recycled Water main in Merrill Avenue;
- A 12-inch recycled water main in Eucalyptus Avenue connecting to the existing 16-inch 930 Pressure Zone recycled water main at the intersection of Carpenter Avenue and Eucalyptus Avenue and extending to Grove Avenue;
- An 8-inch recycled water main in Merrill Avenue connecting to the existing City 12-inch 930 Pressure Zone Recycled Water main in Merrill Avenue at the intersection of Merrill Avenue and Carpenter Avenue and extending westerly to Baker Avenue;
- An 8-inch recycled water main in Merrill Avenue connecting to the 12-inch recycled water main in Merrill Avenue at Baker Avenue and extending westerly to Grove Avenue.



Note:
 1. Line diameter sizes noted on this exhibit may be subject to modification by OMUC as part of final engineering.
 2. Additional utilities may be required by the Engineering Department to be constructed as part of the ultimate street improvements at the discretion of the City Engineer.



NOT TO SCALE
 Source: T&B Planning, Inc.

Figure 4.12-5
 Conceptual Recycled Water Plan

In addition to the Master Plan 930 Pressure Zone improvements listed above, the Project would construct the following Secondary Loop improvements:

- An 8-inch recycled water main in Merrill Avenue connecting to the 8-inch recycled water main in Merrill Avenue at Grove Avenue and extending west to Euclid Avenue.

The Project would also construct the Local Adjacent Recycled Water System. These improvements include:

- A 12-inch recycled water main in Vineyard Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue;
- A 12-inch recycled water main in Baker Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue;
- An 8-inch recycled water main in Walker Avenue connecting to the 8-inch recycled water main in Merrill Avenue and extending it to connect to the 12-inch main in Eucalyptus Avenue.

Recycled water infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final designs. Recycled water main orientations and configurations are also subject to change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including IEUA Recycled Water mains, that do not meet minimum depth, standard alignment locations, and/or minimum horizontal and vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, the onsite recycled water systems shall be private and be privately maintained.

Sanitary Sewer Plan

The Project Sanitary Sewer Plan Concept is presented at Figure 4.12-6. The analysis presented here evaluates the likely maximum impacts attributable to implementation and operation of the Project Sanitary Sewer Plan. Sanitary sewer service to the Project site and surrounding area is provided by OMUC. OMUC conveys wastewater to IEUA for transmission to area-serving treatment facilities.




Existing 21-inch and existing 24-inch City sanitary sewer mains are located in Carpenter Avenue to the east and south of the Project site. The Project site and surrounding properties are included within the City's Sewer Master Plan. The areas west of Vineyard Avenue are Tributary to the Western Trunk Sewer (WTS), which connect to IEUA's system at Kimball Avenue and Euclid Avenue. The areas east of Vineyard Avenue are Tributary to the Eastern Trunk Sewer (ETS), through the City's Carpenter Trunk Sewer which connect to IEUA's system at Vineyard/Hellman Avenue and the San Bernardino/Riverside County line. Specific Plan Planning Areas 1 to 5 and 1A to 5A are within the WTS tributary area. Specific Plan Planning Areas 6 and 6A are within the ETS tributary area.

Sewer hydraulic analyses are not required as part of the EIR. The Project would nonetheless contribute flows to the adjacent master plan sewer system. A sewer study of the Project area would be submitted as part of the City's Development Review process in conjunction with development proposals within the Specific Plan Area.

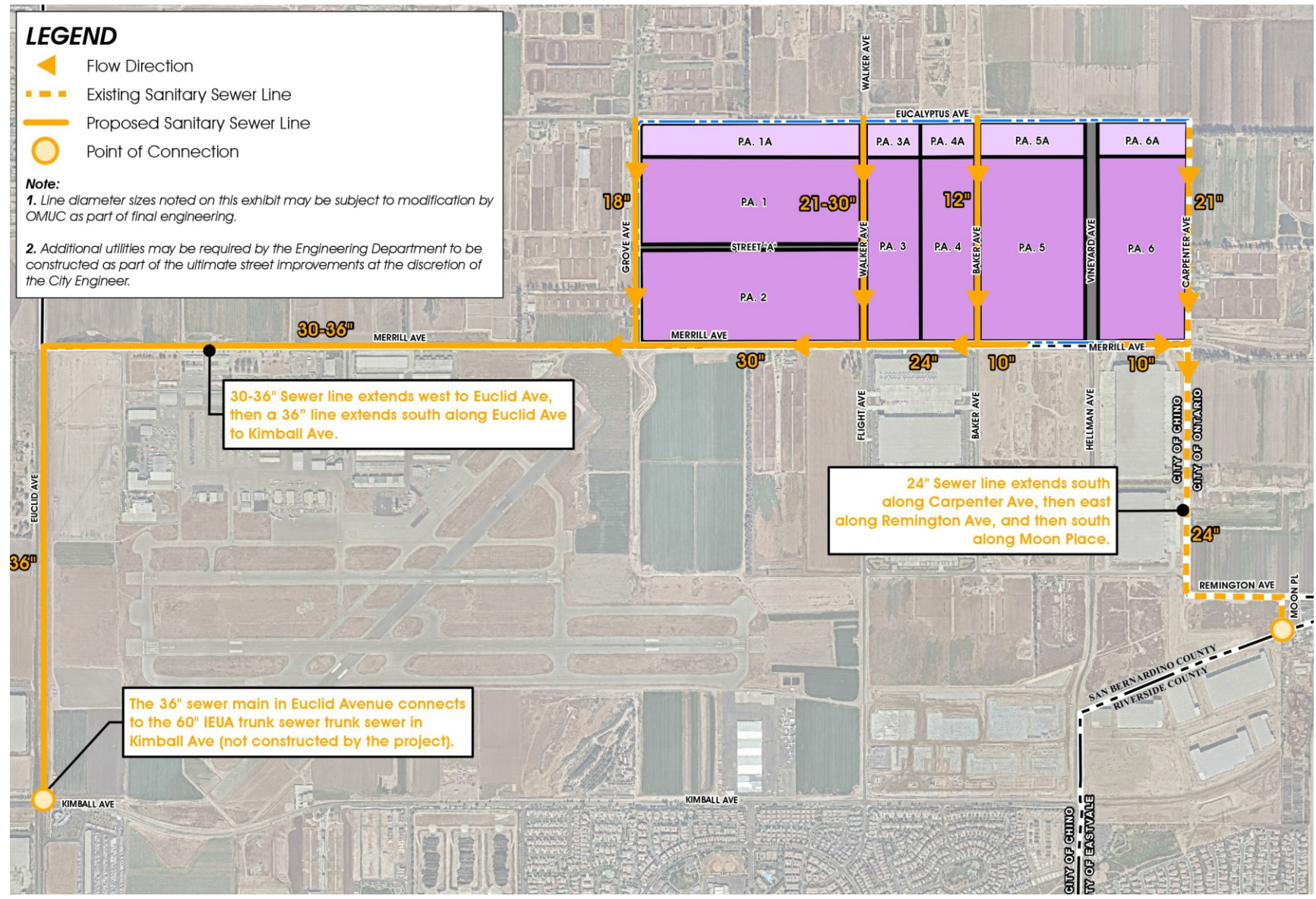
The Project would construct the following Primary Sewer Master Plan Backbone mains of the WTS:

- A 36-inch sewer main in Euclid Avenue connecting to the IEUA's 60-inch Kimball Interceptor at the intersection of Kimball Avenue and Euclid Avenue and extending north to Merrill Avenue;
- A 30-inch to 36-inch sewer main in Merrill Avenue from Euclid Avenue to Grove Avenue;

LEGEND

-  Flow Direction
-  Existing Sanitary Sewer Line
-  Proposed Sanitary Sewer Line
-  Point of Connection

Note:
 1. Line diameter sizes noted on this exhibit may be subject to modification by OMUC as part of final engineering.
 2. Additional utilities may be required by the Engineering Department to be constructed as part of the ultimate street improvements at the discretion of the City Engineer.



30-36" Sewer line extends west to Euclid Ave, then a 36" line extends south along Euclid Ave to Kimball Ave.

24" Sewer line extends south along Carpenter Ave, then east along Remington Ave, and then south along Moon Place.

The 36" sewer main in Euclid Avenue connects to the 60" IEUA trunk sewer trunk sewer in Kimball Ave (not constructed by the project).



NOT TO SCALE
 Source: T&B Planning, Inc.

Figure 4.12-6
 Conceptual Sewer Plan

- A 30-inch sewer main in Merrill Avenue from Grove Avenue to Walker Avenue; and
- A 21-inch to 30-inch sewer main in Walker Avenue from Merrill Avenue to Eucalyptus Avenue.

In addition to the Primary Sewer Master Plan Backbone mains, the Specific Plan area requires the planning, design, and construction of a Secondary Master Plan Trunk Sewer, which includes: installing an 18-inch Grove Trunk Sewer main in Grove Avenue from the WTS in Merrill Avenue and extending north in Grove Avenue to Eucalyptus Avenue.

The Project would also construct the Local Adjacent Sewer System. These improvements include:

- A 10-inch sewer main in Merrill Avenue from Carpenter Avenue extending westerly towards Vineyard Avenue;
- A 24-inch sewer main in Merrill Avenue from the WTS in Walker Avenue and extending easterly to Baker Avenue;
- A 10-inch sewer main in Merrill Avenue from Baker Avenue extending easterly towards Vineyard Avenue; and
- A 12-inch sewer main in Baker Avenue from Merrill Avenue extending northerly toward Eucalyptus Avenue.

Sanitary sewer infrastructure improvements required of the Project are subject to change based upon findings of City-approved hydraulic studies, master plan updates, and Project final designs. Sewer main orientations and configurations are also subject to change based upon the developer-conducted and City-approved Conceptual Design Report. Any existing utilities, including IEUA Recycled Water mains, that do not meet minimum depth, standard alignment locations, and/or minimum horizontal and vertical separation requirements shall be subject to relocation/replacement by the Project developer(s). Within the Project site, on individual private property, the onsite sanitary sewer systems shall be private and be privately maintained.

Dry Utilities/Fiber Optics Plan

Electric power, natural gas, telecommunications, and fiber optic services are generally available to the Project site and surrounding areas of Ontario Ranch. The analysis presented here evaluates the likely maximum impacts attributable to implementation and operation of the Project Dry Utilities/Fiber Optics Plan. Utility purveyor currently available to service the Project area include:

- Southern California Edison (SCE) – Electric power;
- SoCalGas – Natural gas;
- Telecommunications – various private providers; and
- Fiber optic system – City of Ontario.

The Project does not propose dry utilities generation, storage, or supply facilities, the construction or relocation of which could cause potentially significant environmental effects.

Figure 4.12-7 presents the Project Dry Utilities Infrastructure Plan concept. Dry utility lines (e.g., natural gas lines, electric lines) would be installed within joint trenches in Merrill Avenue and would connect to existing lines in Merrill Avenue to the west of Grove Avenue, and to existing lines in Merrill Avenue to the east of Carpenter Avenue. Lateral dry utility lines within joint trenches would be installed in Grove Avenue, Vineyard Avenue, and Eucalyptus Avenue. The lateral dry utility line within Eucalyptus Avenue would connect to existing dry utility lines in Merrill and Archibald Avenue to the east. The lateral dry utility lines within Grove Avenue and Vineyard Avenue would connect to the primary dry utility lines within Merrill Avenue.

Dry utilities internal to the Specific Plan Area would be installed underground in accordance with applicable purveyor standards and specifications and to the satisfaction of the City Engineer. The locations and configurations of utilities connections, transformers, switches, pull boxes, and manholes would be determined in conjunction with final Project designs and engineering. Existing power poles located along Eucalyptus Avenue and Merrill Avenue will be undergrounded as part of the Specific Plan's buildout.

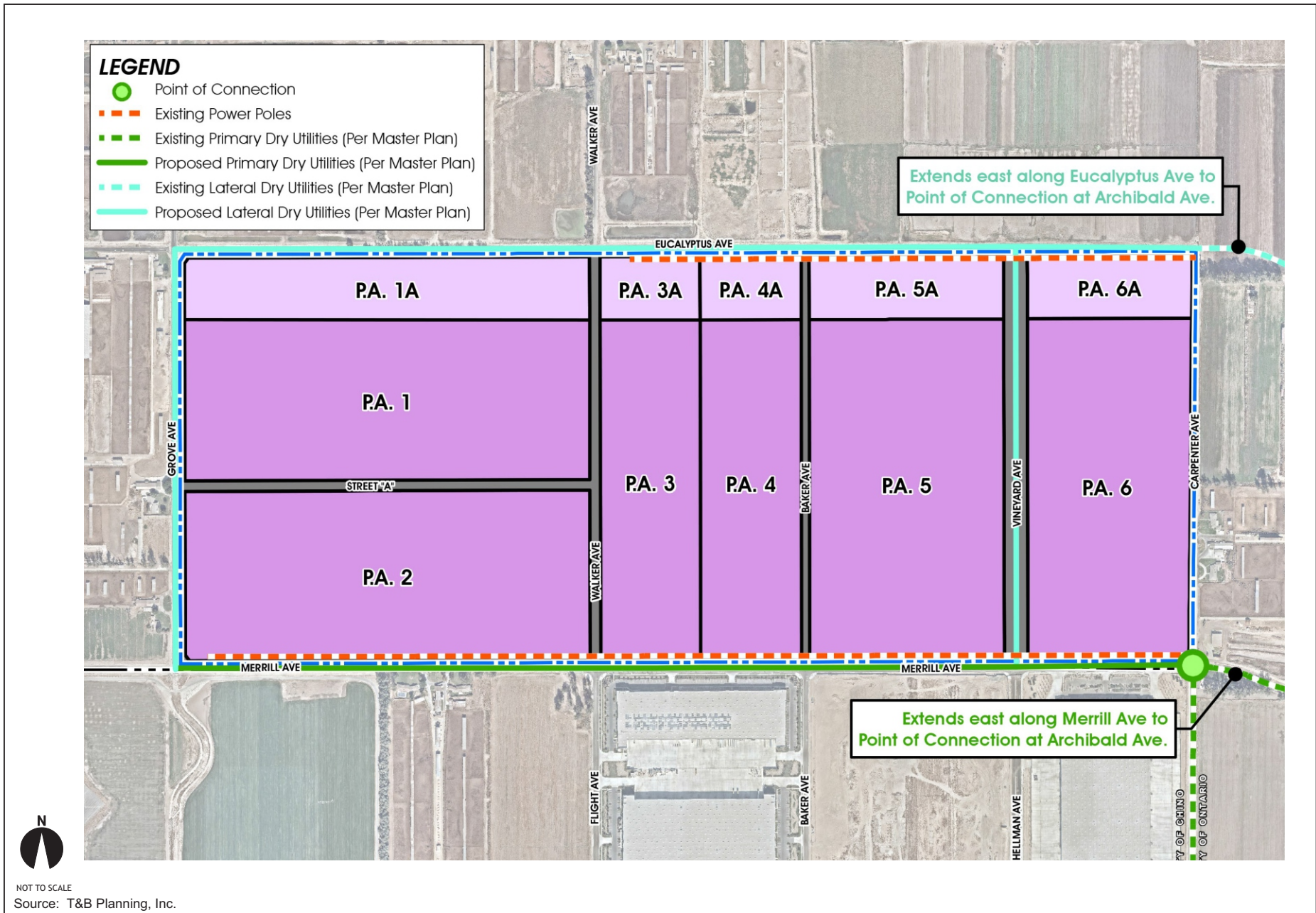
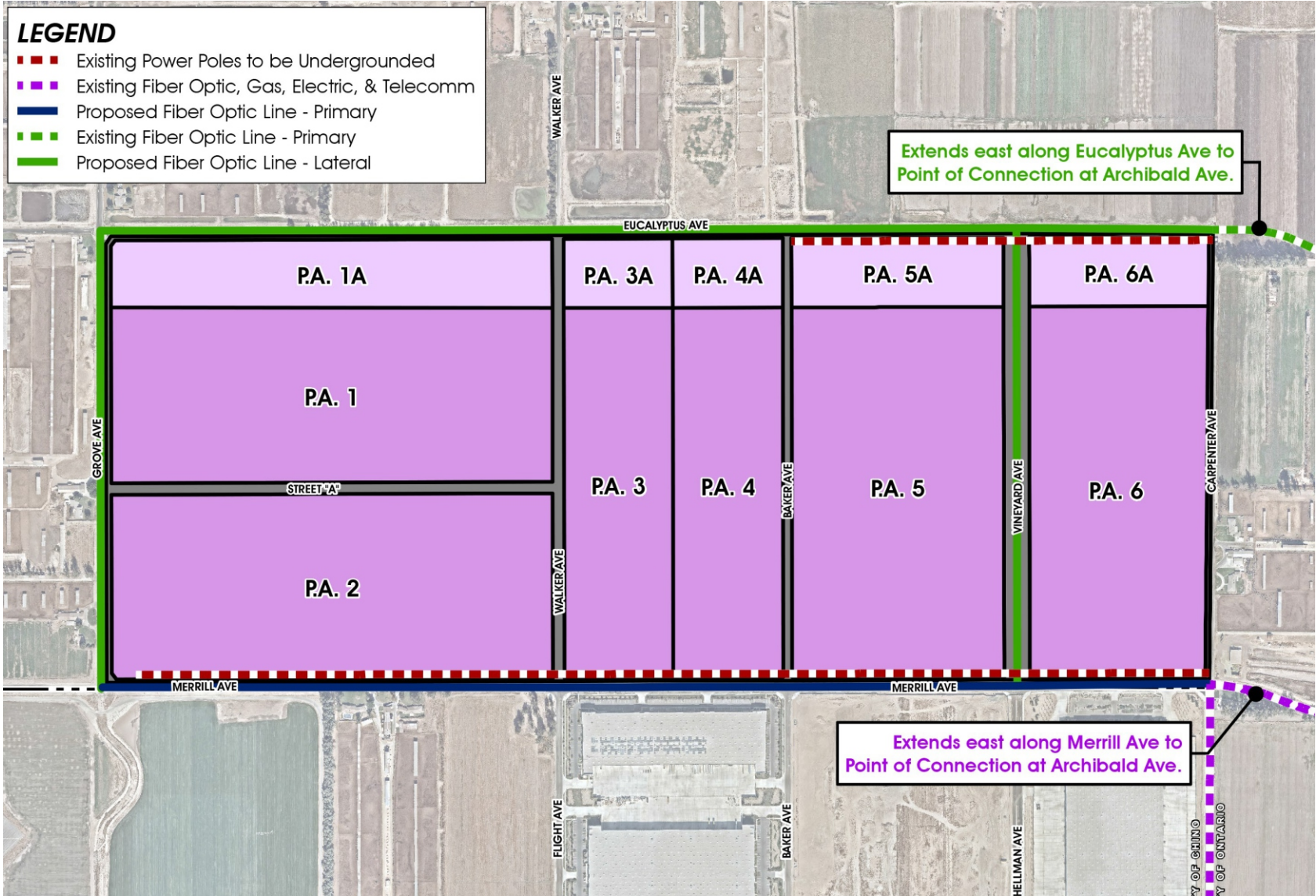


Figure 4.12-7
Dry Utilities Plan

The Specific Plan Fiber Optics Plan is illustrated at Figure 4.12-8. Fiber optic lines would be installed on- and off-site in accordance with the City of Ontario's Master Plan standards. Per the City of Ontario's Master Fiber Optic Plan, lines will be installed in Merrill Avenue between Grove Avenue and Carpenter Avenue, Grove Avenue abutting Planning Areas 1 and 2; in Eucalyptus Avenue from Grove Avenue to Carpenter Avenue; and in Vineyard Avenue abutting Planning Areas 5 and 6.

Backbone fiber optics components (conduits, hand holes, tracer wire, and fiber) will be placed underground within a duct and structure system to be installed in a joint trench within adjacent streets. Within the Specific Plan Area, in-tract fiber and conduit will be installed per the City's in-tract fiber optic design guidelines (see: https://www.ontarioca.gov/sites/default/files/Ontario-Files/Information-Technology/2014-12-16_in-tract_designguidelines.pdf).

Maintenance of the installed fiber optic system will be the responsibility of the City/Special District. Development of the Project requires installation of all fiber optic infrastructure and peripheral equipment necessary to service the Specific Plan as a stand-alone development.



NOT TO SCALE
Source: T&B Planning, Inc.

Figure 4.12-8
Fiber Optics Plan

Wastewater Treatment

The Project area is not currently served municipal sewers or municipal wastewater treatment systems. Wastewater disposal and treatment is currently accomplished via private sewage disposal fields (septic tank and subsurface disposal field). If the Project is approved by the City, wastewater treatment services for the Project would be provided by IEUA. The analysis presented here evaluates the likely maximum wastewater treatment impacts attributable to implementation and operation of the Project.

It is anticipated that wastewater generated by the Project would be conveyed to IEUA Regional Water Reclamation Plant No. 5 (IEUA Plant No. 5). Water Reclamation Plant No. 5 has a capacity of 16.3 mgd, with daily average influent flows of 9 mgd.⁶ IEUA treats wastewater meet discharge requirements and Title 22 water quality standards for reuse as recycled water.

Total water demand of the Project (domestic water demand + recycled water demand) is estimated at 882,377 gpd.⁷ Conservatively assuming that all water consumed by the Project would be discharged as wastewater, total wastewater treatment demand of the Project is estimated at 882,377 gpd (0.882377 mgd, use 0.9 mgd). As indicated above, available treatment capacity at IEUA Plant No. 5 is approximately 7+ mgd (16.7 mgd capacity – 9 mgd average demand). The Project maximum 0.9 mgd wastewater treatment demand could be accommodated within IEUA Plant No. 5 available wastewater treatment capacity. Further, the Project proposes conventional warehouse and business park uses, and would not generate wastewater that would require treatment processes or protocols not currently provided by IEUA.

⁶ ---. "Regional Water Recycling Plant No. 5." *Inland Empire Utilities Agency | Water Smart - Thinking in Terms of Tomorrow*. www.ieua.org/facilities/rp-5/. Accessed 28 Aug. 2019.

⁷ *Water Supply Assessment Merrill Commerce Center Specific Plan for City of Ontario (Placeworks)* July 2019, p.10, Table 4 *Water Demand Estimate for the Proposed Development*.

Each individual development project within the Specific Plan area would be required to pay applicable sewer connection and service fees, which act to fund City improvement plans, operations, and maintenance.

Storm Water Management

With the exception of regional drainage channels, the existing stormwater management system within Ontario Ranch, including the Project site, is generally unimproved, comprising primarily open earthen swales along roadways or curbed roadway surfaces. Potential storm water management system impacts are addressed at EIR Section 4.7, *Hydrology/Water Quality*. The analysis presented at EIR Section 4.7, *Hydrology/Water Quality* evaluates the likely maximum hydrology/water quality impacts attributable to implementation and operation of the Project.

The Project would implement area-serving stormwater management improvements consistent with the City MDP. On-site stormwater management systems would be developed concurrent with planning of individual development proposals within the Project site. All proposed on-site stormwater management systems would be subject to review and approval by the City. Please refer also to EIR Section 3.0, *Project Description, Stormwater Management Plan*.

IMPACTS SUMMARY

Utilities and service systems distribution and conveyance lines serving the Project would be constructed pursuant to approved City Infrastructure Master Plans, and would be located within existing improved streets or otherwise disturbed properties, thereby limiting or avoiding potential impacts. Construction and operation of all Project utilities and service systems distribution and conveyance lines would conform with all City and purveyor standards and requirements, further limiting potential environmental effects.

This EIR evaluates likely maximum impacts associated with all Project actions and operations, including but not limited to construction and operation of utilities and service systems distribution and conveyance lines. Construction and operation of the Project utilities and service systems distribution and conveyance lines described in this

Section would not result in conditions or environmental impacts not already considered and addressed elsewhere in this EIR. At properties adjacent to master plan infrastructure improvements implemented by the Project, construction-source noise impacts are recognized as significant and unavoidable (see: EIR Section 4.5, *Noise*). Additionally, conversion of off-site agricultural lands to non-agricultural purposes could result from construction of master plan infrastructure improvements supporting the Project. These impacts are recognized as significant and unavoidable (see: EIR Section 4.11, *Agricultural Resources*). Mitigation proposed in this EIR under other environmental topics would also address potential impacts associated with construction and operation of utilities and service systems distribution and conveyance lines.

Utilities distribution/conveyance systems lines proposed by the Project would conform to alignments presented in the City Master Plan Utilities/Service Systems Concepts. The Project utilities distribution/conveyance systems lines would provide capacities consistent with OMUC/City requirements. It is noted here that potential impacts resulting from construction and operation of City Master Plan infrastructure systems have been previously considered and addressed in Initial Study and Mitigated Negative Declaration City of Ontario Infrastructure Master Plans (City of Ontario) July 2012 (Infrastructure Master Plans MND). The Infrastructure Master Plans MND concluded that construction and operation of Master Plan infrastructure improvements would not result in significant impacts not already considered and addressed in correlating analyses in The Ontario Plan EIR. Similarly, Master Plan infrastructure improvements constructed in support of the Project would not result in significant impacts not already considered and addressed in correlating analyses presented within the Infrastructure Master Plans MND; and by extension would not result in significant infrastructure systems impacts not already considered and addressed in correlating analyses presented within The Ontario Plan EIR.

Each individual development project within the Specific Plan area would be required to pay applicable utilities/service system connection and service fees, which act to offset the Project incremental demands on utilities and service systems. That is, connection and service fees paid by the Project developers would fund on-going utilities and service systems improvement plans, operations, and maintenance. Utilities and service

systems improvements would be implemented so as to provide adequate service/capacity for each increment of development. The City would verify service/capacity adequacies prior to issuance of Certificate(s) of Occupancy for the affected increment of development. Ultimately, the City in consultation with affected utilities purveyors and service providers would determine when and in what manner utilities and service systems facilities would be constructed and/or upgraded to meet increasing demands of areawide development, including the incremental demands of the Project.

Based on the preceding, construction-source noise impacts resulting from Project implementation of off-site master plan infrastructure improvements would be significant and unavoidable. These impacts would be cumulatively significant for the duration of construction of off-site master plan infrastructure systems. Construction-source noise impacts are evaluated in detail at EIR Section 4.5, *Noise*. The potential for the Project to otherwise require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects is considered less-than-significant.

Level of Significance: *Individually and cumulatively significant and unavoidable construction-source noise impacts along off-site infrastructure improvements corridors* (see: EIR Section 4.5, *Noise*). Otherwise impacts would be less-than-significant.

Potential Impact: *Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.*

Impact Analysis: Water service to the Project would be provided by OMUC. OMUC's 2015 Urban Water Management Plan (2015 UWMP) was prepared in response to Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act, and includes detailed information about City water demand, supply and reliability for the next 25 years. The 2015 UWMP substantiates that sufficient water supplies are available meet City water demands under normal, single dry, and multiple dry years for the period 2015 – 2040 (2015 UWMP, Section 7.3 *Supply and Demand Assessment*).

Pursuant to requirements of SB 610 (Costa, 2001), a Water Supply Assessment has been prepared for the Project (see: *Water Supply Assessment Merrill Commerce Center Specific Plan for City of Ontario* [Placeworks] July 2019, EIR Appendix M, Project WSA). SB 610 requirements provide that a WSA must “include a discussion with regard to whether the public water system’s total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the water system’s existing and planned future uses, including agricultural and manufacturing uses.” Per Section 10910 (c) (2) of the California Water Code: “If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).” (Project WSA, pp. 8, 9). As substantiated in detail in the Project WSA and summarized here, the Project water demands are accounted for in the 2015 UWMP. Moreover, Project water demands would be less than water demands assumed and accounted for in the 2015 UWMP. Summarizing the findings of the Project WSA, Table 4.12-2 compares Project water demands to correlating demand estimates reflected in the 2015 UWMP.

Table 4.12-2
Water Demand Comparison
Project and 2015 UWMP Estimates

| | Domestic Water Demand (gpd) | Recycled Water Demand (gpd) | Total Water Demand (gpd) |
|---------------------|------------------------------------|------------------------------------|---------------------------------|
| Project | 509,100 | 373,277 | 882,377 |
| 2015 UWMP Estimates | 709,120 | 503,867 | 1,212,987 |

Source: Water Supply Assessment Merrill Commerce Center Specific Plan for City of Ontario (Placeworks) July 2019, Tables 4, 5.

As indicated at Table 4.12-2, the Project’s water demand of 882,377 gpd is well below the 1,212,987 gpd demand assumed for the subject site within the 2015 UWMP. Further, within the 2015 UWMP, OMUC has determined that sufficient water supplies would be available to meet all customer demand under normal, single dry year and multiple dry year scenarios.

Based on the preceding analysis, sufficient supplies to meet the anticipated demand for the Project exist. No new or expanded entitlements would be needed to serve the Project. Impacts in this regard are considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.*

Impact Analysis: As discussed previously in this Section, wastewater treatment services for the Project would be provided by IEUA. Sufficient residual treatment capacity exists at IEUA Regional Water Reclamation Plant No. 5 (IEUA Plant No. 5) to serve the Project's projected wastewater treatment demand in addition to IEUA current wastewater treatment demands. The Project proposes conventional warehouse and business park uses, and would not generate wastewater that would require treatment processes or protocols not currently provided by IEUA.

Each individual development proposal within the IEUA service area (including development proposals within the Project site) is required to pay applicable sewer connection and service fees, which act to fund wastewater treatment system improvement plans, operations, and maintenance – thereby offsetting incremental wastewater treatment demands of new development.

Based on the preceding, the potential for the Project to result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments is less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.*

Impact Analysis: The City of Ontario Integrated Waste Department provides refuse collection services to the residents and businesses in the City of Ontario. The predominance of collected City refuse is transported for disposal at the Badlands Sanitary Landfill and/or El Sobrante Landfill. Receiving landfill statistical information is provided at previous Table 4.12-1. Solid waste would be generated by Project construction/demolition activities as well as Project operations. Construction/demolition waste and operational waste generation estimates are summarized below.

Construction/Demolition Waste

Project construction/demolition waste estimates are summarized at Table 4.12-3.

**Table 4.12-3
Estimated Construction/Demolition Waste**

| Description | Construction Waste | | | | Demolition Waste | | |
|---|--------------------|----------------|-----------------|---------------------------|------------------|----------------|---------------------------|
| | Days | TSF | Total | Tons/Day | Days | Total | Tons/Day |
| Project Phase A | 450 | 2,180.0 | 4,730.6 | 10.5 | 60 | 212.0 | 3.5 |
| Project Phase B | 485 | 4,834.0 | 10,489.8 | 21.6 | 80 | 765.0 | 9.6 |
| Project Phase C | 150 | 1,441.0 | 3,127.0 | 20.9 | 30 | 2,329.0 | 77.6 |
| TOTALS/AVERAGE (Unadjusted) | 1,085 | 8,455.0 | 18,347.4 | 16.9 (Average) | 170 | 3,306.0 | 19.5 (Average) |
| TOTALS/AVERAGE (Reduced per CALGreen) | --- | --- | 6,421.6 | 5.9 (Average) | --- | 1,157.1 | 6.8 (Average) |
| TOTALS/AVERAGE (Reduced per Project Demolition Plan) | --- | --- | 1,834.7 | 1.7 (Average) | --- | 330.6 | 1.95 (Average) |

Sources: Demolition estimates, Project construction/demolition schedule:

Construction waste estimates: *Estimating 2003 Building-Related Construction and Demolition Material Amounts* (EPA); <https://www.epa.gov/smm/estimating-2003-building-related-construction-and-demolition-materials-amounts>,

Nonresidential Construction Waste: 4.34 lbs./sf.

As indicated at previous Table 4.12-1, the El Sobrante Landfill has a residual daily throughput capacity of approximately 5,199 tons per day; and the Badlands Sanitary Landfill has a residual daily throughput capacity of approximately 2,661 tons per day. The Project construction waste generation (maximum 21.6 tons/day) and demolition

waste generation (maximum 77.6 tons/day) summarized at Table 4.12-3 can be accommodated within either of the landfills’ daily throughput capacities. Project construction/demolition waste impacts to area landfill daily throughput capacities would therefore be less-than-significant.

Additionally, per CALGreen Section 5.408.1 *Construction waste management*, the Project would be required to “[r]ecycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.” Surpassing CALGreen requirements, the Project Construction and Demolition Waste Management Plan will be designed and implemented to yield a minimum of 90 percent recycled/salvaged materials (see: EIR Section 3.0, *Project Description*, 3.4.3.6 *Project Design Features*). Estimated reduced construction and demolition waste estimates that would be realized under CALGreen Section 5.408.1 *Construction waste management*, and the Project Construction and Demolition Waste Management Plan are indicated at Table 4.12-3. These measures would further reduce already less-than-significant construction/demolition waste impacts to area landfill daily throughput capacities.

Operational Waste Estimates

Project operational solid waste estimates are summarized at Table 4.12-4.

**Table 4.12-4
Estimated Operational Solid Waste Generation**

| Land Use | Waste Generation Factor | Project | Total Waste Generation (Tons Per Day) |
|-------------------------|-------------------------|--------------|---------------------------------------|
| Manufacturing/Warehouse | 1.42 pounds/100 sf | 8,455,000 sf | 60.03 |

Source: Waste Generation Factor: CalRecycle -<https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>

As indicated at previous Table 4.12-1, the El Sobrante Landfill has a residual daily throughput capacity of approximately 5,199 tons per day; and the Badlands Sanitary Landfill has a residual daily throughput capacity of approximately 2,661 tons per day. The Project solid waste generation (approximately 60.03 tons per day) can be

accommodated within either of the landfills' daily throughput capacities. Project operational solid waste impacts to area landfill daily throughput capacities would therefore be less-than-significant. Moreover, the Project solid waste generation estimates presented at Table 4.12-13 do not reflect minimum 50 percent solid waste recycling/diversion required under the California Integrated Waste Management Act of 1989 (AB 939). Assuming a minimum 50 percent reduction per AB 939, Project solid waste conveyed to area landfills would total approximately 30 tons per day. Project mandated compliance with AB 939 would further decrease already less-than-significant Project operational waste impacts to area landfill daily throughput capacities.

As summarized at previous Table 4.12-1, the El Sobrante Landfill has a remaining capacity of approximately 144.0 million cubic yards (roughly 84.7 – 144.0 million tons).⁸ The Badlands Sanitary Landfill has a remaining capacity of approximately 15.7 million cubic yards (roughly 9.2 – 15.7 million tons). The Project contributions of 18,347.4 tons (0.183 million tons) maximum total construction waste; 3,306.0 tons (0.003 million tons) maximum total demolition waste; and 21,911 tons (0.022 million tons) of operational solid waste annually represent a nominal fractional percentage of the collective remaining permitted capacity (93.9 – 159.7 million tons) of the serving landfills. The Project would therefore not substantially alter existing or future solid waste disposal capacities. Moreover, the Riverside County Department of Waste Resources, Countywide Integrated Waste Management Plan 2017 (CIWMP), *Countywide Siting Element*, demonstrates that there are at least 15 years of remaining landfill disposal capacity to serve all the jurisdictions within the County.⁹ Project solid waste impacts to area landfill remaining total capacities are therefore considered less-than-significant.

⁸ EPA. "Volume-to-Weight Conversion Factors U.S. Environmental Protection Agency Office of Resource Conservation and Recovery April 2016." *United States Environmental Protection Agency | US EPA*, www.epa.gov/sites/production/files/201604/documents/volume_to_weight_conversion_factors_memoandum_04192016_508fml.pdf. Accessed 18 Nov. 2019. One cubic yard Municipal Solid Waste (MSW) Compacted Large Landfill With Best Management Practices = 1,700 – 2,000 lbs.

⁹ Riverside County Department of Waste Resources. "Annual Report Summary: Riverside-Unincorporated (2017)." *RCDWR | Home*, 30 July 2018, www.rcwaste.org/Portals/0/Files/Planning/CIWMP/2017%20Annual%20Report.pdf. Accessed 18 Nov. 2019.

Solid waste management is guided by the California Integrated Waste Management Act of 1989 (AB 939), which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. The Act requires that localities conduct a Solid Waste Generation Study (SWGS) and develop a Source Reduction Recycling Element (SRRE), providing for a minimum 50 percent reduction in waste sent to landfills. Diversion rates are calculated and tracked by the California Integrated Waste Management Board (Board). Alternatively, the Board can determine that a jurisdiction's "good faith efforts" to implement comprehensive diversion programs have satisfied the requirement even if diversion levels are below 50 percent.

To reduce waste disposal, AB 939 requires every California city and county to divert 50 percent of its waste from landfills by the year 2000. Residential, commercial and governmental waste recycling programs in support of the SRRE have been implemented by the City of Ontario. The City has met this waste diversion requirement through local recycling programs and participation in regional recycling programs. The City's waste diversion program is run by the Recycling Division. For the fiscal year 2006, Ontario's Board-approved diversion rate was 64 percent. Preliminary rates for 2007 indicate a waste diversion rate of about 57 percent.¹⁰ On-going City compliance with AB 939 diversion targets is substantiated by CalRecycle. For 2017 (the latest data available) CalRecycle per capita target disposal rate for the City of Ontario was 9.9 pounds per day (ppd); the per employee target disposal rate was 16.4 ppd. The actual City rates for 2017 were 6.9 ppd/capita and 10.4 ppd/employee.¹¹

Based on the preceding, the Project potential to generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals is considered less-than-significant.

Level of Significance: Less-Than-Significant.

¹⁰ The Ontario Plan Draft EIR, Section 5 *Utilities and Service Systems*, Page 5.17-30.

¹¹ CalRecycle. "Jurisdiction Review Reports." Home, 17 Nov. 2019, www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports/PerCapitaDisposalTrends. Accessed 17 Nov. 2019.

Potential Impact: *Comply with federal, state, and local statutes and regulations related to solid waste.*

Impact Analysis: Solid waste management statutes and regulations applicable to the Project are summarized below.

City of Ontario Construction & Demolition Recycling Plan (CDRP)

Pursuant to Ontario Municipal Ordinance (OMC) Sec. 6-3.602 *Construction & Demolition Recycling Plan* and the 2016 California Green Building Standards Code (CALGreen), all building and demolition permit applicants are required to prepare and submit a Construction & Demolition Recycling Plan (CDRP) and a Construction & Demolition Recycling Plan (CDRP) Summary Report. OMC Sec. 6-3.602 and CALGreen require all construction and qualifying renovation and demolition projects to divert at least 65% of all generated waste materials. The Project would be subject to (OMC) Sec. 6-3.602 and CALGreen construction waste diversion mandates. The City oversees compliance with OMC Sec. 6-3.602 and CALGreen construction waste diversion mandates.

AB 939 - California Integrated Waste Management Act of 1989

Solid waste management is guided by the California Integrated Waste Management Act of 1989 (AB 939), which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. AB 939 requires that localities conduct a Solid Waste Generation Study (SWGS) and develop a Source Reduction Recycling Element (SRRE), providing for a minimum 50 percent reduction in waste sent to landfills. Diversion rates are calculated and tracked by the California Integrated Waste Management Board (Board). Alternatively, the Board can determine that a jurisdiction's "good faith efforts" to implement comprehensive diversion programs have satisfied the requirement even if diversion levels are below 50 percent.

To reduce waste disposal, AB 939 requires every California city and county to divert 50 percent of its waste from landfills. Residential, commercial and governmental waste recycling programs in support of the SRRE have been implemented by the City.

As noted above, the City is currently meeting or exceeding all AB 939 solid waste diversion targets. The Project would be required to comply with AB 939 as implemented by the City.

AB 341 - Commercial Recycling

Assembly Bill 341 mandates recycling for businesses producing four or more cubic yards of solid waste per week, and multifamily dwellings of five units or more. Under the law, business must separate recyclables from trash and then either subscribe to City of Ontario recycling services, self-haul their recyclables, or contract with a permitted private recycler. The Project would be subject to Assembly Bill 341 mandates.

AB 1826 - Commercial Organics Recycling

Under Assembly Bill 1826, businesses are required to arrange for organic recycling services. The Project would be subject to Assembly Bill 1826 mandates.

The California Department of Resources Recycling and Recovery (CalRecycle) oversees both the mandatory commercial recycling program and the mandatory commercial organics recycling program. The City of Ontario supports both bills through public outreach, monitoring of recycling efforts, providing notification to non-compliant businesses, and periodic State reporting.

The Project would be required to comply with the above solid waste management statutes and regulations. The City and CalRecycle would oversee and monitor compliance with applicable solid waste management statutes and regulations.

Based on the preceding, the potential for the Project to conflict with federal, state, and local statutes and regulations related to solid waste is less-than-significant.

Level of Significance: Less-Than-Significant.

4.13 ENERGY

4.13 ENERGY

Abstract

This Section identifies and addresses potential energy impacts that may result from construction and implementation of the Project. More specifically, the energy impacts analysis evaluates the potential for the Project to cause or result in the following impacts:

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

As supported by the analysis presented in this Section, potential energy impacts of the Project would be less-than-significant.

4.13.1 BACKGROUND AND INTRODUCTION

In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs; license thermal power plants of 50 megawatts or larger; develop energy technologies and renewable energy resources; plan for and direct responses to energy emergencies; and, perhaps most importantly, to promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards.

Of relevance to the Project and this EIR, AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the potential for wasteful, inefficient, and/or

unnecessary consumption of energy caused by or resulting from a project. Appendix F to the *CEQA Guidelines* (Guidelines) assists EIR preparers in this regard. More specifically, *Guidelines Appendix F Energy Conservation* establishes parameters and context for determining whether a project would result in the inefficient, wasteful, and unnecessary consumption of energy.

Guidelines Section 15126.2 *Consideration and Discussion of Significant Environmental Impacts*, as amended December 28, 2018, recognizes the need to consider *Guidelines Appendix F Energy Conservation* when analyzing project impacts (for EIRs). In this regard, *Guidelines* Section 15126.2 (b), excerpted below, provides the following guidance:

Energy Impacts. If analysis of the project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. (Guidance on information that may be included in such an analysis is presented in Appendix F.) This analysis is subject to the rule of reason and shall focus on energy use that is caused by the project. This analysis may be included in related analyses of air quality, greenhouse gas emissions, transportation or utilities in the discretion of the lead agency. The analysis presented here conforms to *Guidelines* Section 15126.2 (b) guidance.

In summary, the Project would provide for, and promote, energy efficiencies consistent with applicable state or federal standards and regulations. The Project would also conform to City of Ontario (City) energy efficiency and energy conservation measures.

Moreover, energy consumed by the Project would be comparable to, or less than, energy consumed by other development proposals of similar scale and intensity. On this basis, the Project would not result in the inefficient, wasteful or unnecessary consumption of energy. Further, the Project would not cause or result in the need for additional energy-producing facilities or energy delivery systems. The Project would therefore not result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption use of energy, or wasteful use of energy resources. Nor would the Project result in significant environmental effects due to conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.

4.13.2 EXISTING CONDITIONS

4.13.2.1 Overview

A summary of, and context for, energy consumption and energy demands within the State is presented in *U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts* excerpted below:

- California was the fourth-largest producer of crude oil among the 50 states in 2017, after Texas, North Dakota, and Alaska, and, as of January 2018, third in oil refining capacity after Texas and Louisiana.
- California is the largest consumer of jet fuel among the 50 states and accounted for one-fifth of the nation's jet fuel consumption in 2016.
- California's total energy consumption is second-highest in the nation, but, in 2016, the state's per capita energy consumption ranked 48th, due in part to its mild climate and its energy efficiency programs.
- In 2017, California ranked second in the nation in conventional hydroelectric generation and first as a producer of electricity from solar, geothermal, and biomass resources.
- In 2017, solar PV and solar thermal installations provided about 16% of California's net electricity generation.¹

¹ U.S. Energy Information Administration. (2018, November 15). California Profile. Retrieved August 13, 2019, from <https://www.eia.gov/state/print.php?sid=CA>

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient.

4.13.2.2 Electricity and Natural Gas Resources

Electricity

Electricity would be provided to the Project by Southern California Edison (SCE). The Project site is vacant and undeveloped and does not contain uses or facilities that consume or produce electricity.

SCE is an investor-owned utility providing electric power to an estimated 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles.² SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. The California Public Utilities Commission (CPUC) regulates investor-owned electric utilities operating in California, including SCE.

Natural Gas

Natural gas would be provided to the Project by Southern California Gas (SoCal Gas). The Project site is vacant and undeveloped and does not contain uses or facilities that consume or produce natural gas.

SoCal Gas is the nation's largest natural gas distribution utility, serving approximately 21.8 million consumers through 5.9 million meters in more than 500 communities. The SoCal Gas service territory encompasses approximately 24,000 square miles throughout Central and Southern California, from Visalia to the Mexican border. Natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the

² Southern California Edison. (n.d.). Who We Are. Retrieved August 13, 2019, from <https://www.sce.com/about-us/who-we-are>

state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC regulates investor-owned natural gas utilities operating in California, including SoCal Gas.

4.13.2.3 Transportation Energy Resources

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline. Gasoline (and other vehicle fuels) are commercially-provided commodities and would be available to the Project patrons and employees via commercial outlets. The Project site is vacant and undeveloped and does not contain uses or facilities that consume or produce transportation energy resources.

California's historical demand for transportation fuels reflects a significant dependence on gasoline, diesel, and jet fuel. The transportation sector in California consumed more than 23.2 billion gasoline gallon equivalents (GGEs) of energy in 2015 [the latest date of record], of which 21.8 billion (or 94 percent) were fossil fuels. In 2005, California consumed roughly 23.5 billion GGE of fossil fuels. Since then, a notable decline in energy consumption occurred from 2007 to 2010, reflecting the effect of the 2008 financial crisis. However, since 2012 economic growth and declining crude oil prices have led to an increase in gasoline consumption.³

4.13.3 STATE AND LOCAL ENERGY EFFICIENCY/ENERGY CONSERVATION PLANS, POLICIES, REGULATIONS

Project consistency with State and City Energy Efficiency/Energy Conservation Plans and related policies and/or regulations relevant to the Project are summarized at Table 4.13-1. In addition to the plans, policies, and regulations listed below, the State and City have also implemented measures that reduce air pollutant emissions and greenhouse gases. As a corollary effect, these measures in part act to promote energy efficiency and reduce energy consumption. Discussions of these plans, policies, and regulations are presented at EIR Sections 4.3, *Air Quality* and 4.4, *Greenhouse Gas Emissions*.

³ *Transportation Energy Demand Forecast 2018 – 2030* (CEC) November 2017, p. 8.

**Table 4.13-1
State and Local Energy Efficiency/Energy Conservation Plan Consistency**

| PLANS, POLICES, REGULATIONS | Remarks |
|--|---|
| STATE of CALIFORNIA | |
| <p>California Code of Regulations (CCR) Title 24, Part 6: Energy Efficiency Standards California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California’s energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. The Project would be required to comply with energy efficiency standards in effect at the time of building permit application(s).</p> | <p>Consistent: <i>The Project would be designed, constructed and operated to meet or exceed incumbent CCR Title 24 Energy Efficiency Standards.</i></p> <p><i>Based on the preceding, the Project is considered consistent with, and would not interfere with or obstruct implementation of CCR Title 24, Part 6: Energy Efficiency Standards.</i></p> |
| <p>CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen). CALGreen is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2011. CALGreen is updated on a regular basis, with the most recent update consisting of the 2016 California Green Building Code Standards that became effective January 1, 2017. Under state law, local jurisdictions are permitted to adopt more stringent requirements.</p> | <p>Consistent: <i>The Project would be designed, constructed and operated to meet or exceed incumbent CCR Title 24 CALGreen Standards.</i></p> <p><i>Based on the preceding, the Project is considered consistent with, and would not interfere with or obstruct implementation of CCCR, Title 24, Part 11: CALGreen.</i></p> |
| CITY of ONTARIO | |
| Policy Plan (General Plan) | |
| <p>ER3-1 Conservation Strategy. We require conservation as the first strategy to be employed to meet applicable energy-saving standards.</p> | <p>Consistent: <i>The Project would implement conservation strategies acting to reduce energy consumption. Such strategies include, but would not be limited to: water conservation; waste reduction and recycling; and fuel conservation achieved through transportation demand measures. Please refer also to energy efficiency, resource conservation, and sustainability measures incorporated in the Project (see: EIR Section 3.0 Project Description, 3.4.3.6 Project Design Features).</i></p> <p><i>Based on the preceding, the Project is considered consistent with General Plan Policy ER3-1.</i></p> |
| <p>ER3-3: Building and Site Design. We require new construction to incorporate energy efficient building and site design strategies, which could include appropriate solar orientation, maximum use of natural daylight, passive solar and natural ventilation.</p> | <p>Consistent: <i>Design features incorporated in the Project would promote efficient use of energy and other resources, further City conservation and sustainability goals and strategies, and act to generally diminish the Project’s potential environmental effects. Please refer to EIR Section 3.0, Project Description, 3.4.3.6 Project Design Features.</i></p> <p><i>Building roofs in the Industrial Planning Areas will be designed to accommodate installation of solar panels. Final Project designs would also consider and evaluate potential incorporation of other energy efficient building and site design strategies. Such strategies may also include solar orientation, maximum use of natural daylight, passive solar and natural ventilation. The Project would at a minimum achieve energy efficiency standards articulated in CCR Title 24, Part 6: Energy Efficiency Standards,</i></p> |

**Table 4.13-1
State and Local Energy Efficiency/Energy Conservation Plan Consistency**

| PLANS, POLICES, REGULATIONS | Remarks |
|--|--|
| | <p><i>and CCR, Title 24, Part 11: California Green Building Standards Code. Please refer also to related discussions presented at EIR Section 4.4, Greenhouse Gas Emissions and within the Merrill Commerce Center Specific Plan.</i></p> <p><i>Based on the preceding, the Project is considered consistent with General Plan Policy ER3-3.</i></p> |
| <p>ER3-6 Generation- Renewable Sources. We promote the use of renewable energy sources to serve public and private sector development.</p> | <p>Consistent: <i>Design features incorporated in the Project would promote efficient use of energy and other resources, further City conservation and sustainability goals and strategies, and act to generally diminish the Project’s potential environmental effects. Please refer to EIR Section 3.0, Project Description, 3.4.3.6 Project Design Features.</i></p> <p><i>Based on the preceding, the Project is considered consistent with General Plan Policy ER3-6.</i></p> |
| Community Climate Action Plan (CAP) | |
| <p>Performance Standard for New Development Under the CAP performance standards, new projects are required to quantify project-generated GHG emissions and adopt feasible reduction measures to reduce project emissions to 25% below 2020 BAU project emissions.</p> | <p>Consistent: <i>Project GHG emissions are quantified at EIR Section 4.4, Greenhouse Gas Emissions. The Project would demonstrate conformance with the CAP and a reduction in project emissions to 25% below 2020 BAU project emissions by achieving a minimum of 100 points per the CAP Screening Tables. Please refer also to related discussions presented at EIR Section 4.4, Greenhouse Gas Emissions and within the Merrill Commerce Center Specific Plan.</i></p> <p><i>Based on the preceding, the Project is considered consistent with the City CAP.</i></p> |

Sources: CCR Title 24, Part 6: Energy Efficiency Standards; CCR, Title 24, Part 11: California Green Building Standards Code; City of Ontario Policy Plan; City of Ontario Community Climate Action Plan; *Merrill Commerce Center Specific Plan* (T&B Planning, Inc.) September 29, 2020; Remarks by Applied Planning, Inc.

Additionally, regulatory measures, standards, and policies directed at reducing air pollutant emissions and GHG emissions would also act to promote energy conservation and reduce Project energy consumption. Please refer to related discussions presented at EIR Section 4.3, *Air Quality* and EIR Section 4.4, *Greenhouse Gas Emissions*.

4.13.4 STANDARDS OF SIGNIFICANCE

Appendix G of the California Environmental Quality Act (CEQA) Guidelines indicates a Project will normally have a potentially significant effect related to energy if it would:

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

4.13.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.13.5.1 Impact Statements

Potential Impact: *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.*

Impact Analysis:

PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY/CONSERVATION MEASURES

Estimated energy demands of Project construction and Project operations are summarized in the following discussions. Project design features and operational programs, as well as regulations that promote energy conservation and energy conservation are also identified. The Project in total would be required to comply with incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Energy Efficiency Standards). Also, developers and owners/tenants have vested financial incentives to avoid imprudent energy consumption practices. In this regard, there is growing recognition among developers and owners/tenants that efficient and sustainable construction and operational practices yield both environmental and economic benefits. On this basis, and as further supported by the

following discussions, the Project would not result in or cause wasteful, inefficient, and unnecessary consumption of energy.

Construction Energy Consumption Estimates and Energy Efficiency/Conservation Measures

Construction Fuel/Power Consumption Estimates

Project construction energy consumption estimates are summarized at Table 4.13-2. Detailed Project construction energy consumption estimates are presented in the *Merrill Commerce Center Specific Plan Energy Tables* (Urban Crossroads, Inc.) January 22, 2020, EIR Appendix N. Project construction would represent a “single-event” energy demand and would not require ongoing or permanent commitment of energy resources for this purpose. Electricity for construction activities would be provided by SCE. Gasoline and diesel fuel would be provided by existing area vendors.

Table 4.13-2
Construction Energy Consumption Estimates

| Activity | Electricity (kWh) | Diesel Fuel (Gallons) | Gasoline (Gallons) |
|-----------------------------------|----------------------|--------------------------|------------------------|
| Construction | 9,734,766 | --- | --- |
| Construction Equipment Operations | --- | 639,042 | --- |
| Vendor Trips (MHDT) | --- | 227,822 | --- |
| Vendor Trips (HHDT) | --- | 323,044 | --- |
| Haul Trips (HHDT) | --- | 39,544 | --- |
| Worker Commutes | --- | --- | 833,743 |
| TOTALS | 9,734,766 kWh | 1,229,452 Gallons | 833,743 Gallons |

Source: *Merrill Commerce Center Specific Plan Energy Tables* (Urban Crossroads, Inc.) January 22, 2020.

Notes: All construction equipment are assumed to be diesel-powered. All vendor and haul trips are assumed to be diesel-powered Medium-Heavy-Duty-Trucks (MHDT) and Heavy-Heavy-Duty Trucks (HHDT). All construction worker commutes assumed to be gasoline-powered light duty autos (LDA).

Construction Energy Efficiency/Conservation Measures

Equipment and vehicles used during Project construction would conform to CARB regulations and California emissions standards, and would demonstrate related fuel efficiencies. There are no unusual Project characteristics or construction processes that would require the use of vehicles or equipment that would be more energy intensive than

is used for comparable activities; or equipment that would not conform to incumbent power/fuel efficiency standards. The Project would also implement applicable efficiency/conservation measures provisions of the City of Ontario Community Climate Action Plan (CAP). Project construction activities would therefore not result in inefficient, wasteful, or unnecessary consumption of power or fuel.

Additionally, certain incidental construction-source energy efficiencies would likely accrue through implementation of California regulations. More specifically, California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) *Idling*, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Indirect construction energy efficiencies and energy conservation would be achieved through the use of recycled/recyclable materials and related procedures, and energy efficiencies realized from bulk purchase, transport and use of construction materials. Use of recycled and recyclable materials and use of materials in bulk also reduces energy demands associated with preparation and transport of construction materials as transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

Construction Waste Management Plan

A Project Construction Waste Management Plan would be required consistent with Section 5.408.1.1 of the CALGreen Code. Consistent with Section 5.408, *Construction Waste Reduction, Disposal, and Recycling* of the California Green Building Standards Code (CALGreen Code), as adopted by the City, the Project would be required to recycle or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition waste. Beyond these mandates, the Project demolition plan would yield a minimum of 90% recycled materials (please refer to EIR Section 3.0, *Project Description*, 3.4.3.6, *Project Design Features*).

Operational Energy Consumption and Energy Efficiency/Conservation Measures

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

Transportation Energy Consumption

Project transportation energy consumption estimates are summarized at Table 4.13-3. Detailed Project transportation energy consumption estimates are presented in the *Merrill Commerce Center Specific Plan Energy Tables* (Urban Crossroads, Inc.) January 22, 2020, EIR Appendix M. Gasoline and diesel fuel would be provided by existing area vendors.

**Table 4.13-3
Transportation Energy Consumption Estimates**

| Vehicle Class | Diesel Fuel (Gallons) | Gasoline (Gallons) |
|----------------|-----------------------|--------------------|
| Passenger Cars | --- | 3,134,666 |
| Trucks | 6,179,183 | |

Source: *Merrill Commerce Center Specific Plan Energy Tables* (Urban Crossroads, Inc.) January 22, 2020.

Notes: All trucks assumed to be diesel-powered. All passenger cars assumed to be gasoline-powered.

Facilities Energy Demands

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by SoCal Gas; electricity would be supplied to the Project by SCE. Annual natural gas and electricity demands of the Project are summarized at Table 4.13-4.

**Table 4.13-4
Project Annual Operational Energy Demand Summary**

| | |
|---------------------------|----------------------|
| Natural Gas Demand | 48,145,750 kBTU/year |
| Electricity Demand | 50,099,940 kWh/year |

Source: *Merrill Commerce Center Specific Plan Energy Tables* (Urban Crossroads, Inc.) January 22, 2020.

Operational Energy Efficiency/Conservation Measures

The Project would meet or surpass standards established under the California Code Title 24, Part 6 (the California Energy Code) and California Green Building Standards Code (CALGreen; CCR, Title 24, Part 11) as implemented by the City. The Project would also implement applicable efficiency/conservation measures provisions of the City of Ontario Community Climate Action Plan (CAP).

Enhanced Vehicle Fuel Efficiencies

Estimated annual fuel consumption estimates presented previously at Table 4.13-3 represent likely potential maximums that would occur under Project Opening Year (2021) Conditions. Under future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation. Average fuel economies of vehicles accessing the Project site can also be expected to improve over time in response to fuel economy and emissions standards imposed on newer vehicles entering the transportation system.

Project Design and Access

The Project proposes industrial and business park uses within an urbanizing context, proximate to, and readily accessible from regional and local roadways. In these regards, the Project setting proximate to transportation corridors facilitates access to the Project generally.

Alternative Transportation – Pedestrian, Bicycle/Multi-Use Trails, Transit Facilities

Alternative transportation modes and services available to the Project site and vicinity are described below. In combination, availability of alternative transportation modes would act to reduce fuel/energy consumption otherwise resulting from use of privately-owned vehicles.

Bus Services

Bus service to the Study Area is provided by Omnitrans and the Riverside Transit Authority (RTA). Omnitrans Route 81 (E –W) exists along Riverside Drive, approximately 1.75 miles northerly of the Project site; Omnitrans Route 83 (N – S) exists along Euclid

Avenue, approximately 1 mile westerly of the Project site. Omnitrans bus routes and schedules can be accessed at: <https://omnitrans.org/getting-around/maps-schedules/>.

Bus service within the Study Area is also available via the Riverside Transit Authority (RTA). RTA Routes 3 and 29 (N – S) exist along Hamner Avenue, approximately 2.5 miles easterly of the Project site. RTA bus routes and schedules can be accessed at: <https://www.riversidetransit.com/index.php/riding-the-bus/maps-schedules>.

Transit service providers periodically review and update schedules and routes to address ridership, budget, and community demands. The Applicant and City would coordinate Project final designs with Omnitrans and RTA to evaluate the potential for provision of bus services and bus amenities serving the Project site.

Bicycle Facilities and Pedestrian Access

There are existing sidewalks off-site along portions of Merrill Avenue, Flight Avenue, and Van Vliet Avenue. Additionally, in the vicinity of the Project site, a multipurpose trail is planned along Grove Avenue (N – S); a multipurpose trail is planned along Vineyard Avenue (N – S); a multipurpose trail and Class II Bike Route (striped separate bike lanes) are planned along Walker Avenue (N – S); a multipurpose trail and Class II Bike Route are planned along Eucalyptus Avenue; and a multipurpose trail and Class II Bike Route are planned along Merrill Avenue. These improvements would globally improve pedestrian and bicycle access within and through the Study Area. Additionally, consistent with City requirements and provisions of the Merrill Commerce Center Specific Plan, the Project would implement on-site pedestrian/bicycle/multi-purpose paths and supporting amenities that would encourage use of alternative transportation modes.

Landscaping

Landscaping within the Project site would be required to conform to Merrill Commerce Center Specific Plan Landscape Design Guidelines. Per the Design Guidelines, development projects would . . . “incorporate a drought-tolerant plant palette and water-efficient irrigation system design to minimize the water demands of planned development. In addition, implementing development projects will be required to comply with the water-

efficiency mandates of the California Green Building Standards Code (Title 24), including the provision of water-efficient fixtures” (Specific Plan, p. A-8). The Design Guidelines and CALGreen standards promote water conservation, resulting in related reduction in energy consumption attributable to water production, water treatment, and water conveyance.

Solid Waste Diversion/Recycling

The Project would be required to comply with applicable State of California and City solid waste diversion/recycling rules and regulations. These laws and regulations include but are not limited to: State AB 939, State AB 341; CALGreen Code Section 5.408, *Construction Waste Reduction, Disposal, and Recycling*; and requirements presented at Ontario Municipal Code Sec. 6-3.602 *Construction & Demolition Recycling Plan*.

See also: https://www.ontarioca.gov/sites/default/files/Ontario-Files/Municipal-Utilities-Company/2017_cd_plan_overview_0.pdf.

In combination, these laws and regulations act to reduce the amount of solid waste transported to, and disposed at area landfills. Corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations would likely result.

CONCLUSION

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy, and potential Project impacts in these regards would be less-than-significant. Further, energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy-producing or energy transmission facilities and would not create or otherwise result in a potentially significant impact affecting energy resources or energy delivery systems.

As supported by the preceding discussions, the potential for the Project to result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation is considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.*

Impact Analysis: As substantiated at Table 4.13-1, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The potential for the Project to conflict with or obstruct a state or local plan for renewable energy or energy efficiency is therefore considered less-than-significant.

Level of Significance: Less-Than-Significant.

4.14 POPULATION AND HOUSING

4.14 POPULATION AND HOUSING

Abstract

This Section identifies and addresses potential population and housing impacts that may result from approval and implementation of the proposed development. More specifically, the analysis presented here examines whether the Project would:

- *Induce substantial unplanned population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure).*

Additionally, as discussed in the EIR Initial Study (EIR Appendix A), the Project's potential impacts under the following topic were previously determined to be less-than-significant, and are not further substantively discussed here:

- *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.*

As supported by the analysis presented in this Section, potential population and housing impacts of the Project are less-than-significant.

4.14.1 INTRODUCTION

The Population and Housing Section of the EIR focuses on the Project's potential to induce substantial population growth beyond that anticipated under the City of Ontario Policy Plan (Policy Plan). Additionally, the analysis presented here more broadly evaluates whether the Project would result in substantive changes in the Policy Plan population and housing projections; and evaluates the Project's potential employment/housing balance

implications. Information presented within this analysis was obtained from the sources listed below, and cited source documents are incorporated by reference.

- The Ontario Plan (TOP), Policy Plan (Policy Plan), TOP Final Environmental Impact Report (TOP Final EIR), and October 2013 Policy Plan Housing Element Technical Report (Housing Element Technical Report). These documents are available through the City of Ontario, or are accessible at: <http://www.ontarioplan.org/>.
- *Profile of the City of Ontario* (Southern California Association of Governments) May 2019. Accessible at: <http://www.scag.ca.gov/Documents/Ontario.pdf>.
- The proposed *Merrill Commerce Center Specific Plan* (Specific Plan) September 29, 2020, included at EIR Appendix B.

4.14.2 SETTING

4.14.2.1 Location

The Project site¹ is located within the Ontario Ranch (formerly known as New Model Colony, NMC) area of the City. More specifically, the Project site is located along Merrill Avenue, between Grove Avenue and Carpenter Avenue. Eucalyptus Avenue forms the northerly boundary of the Specific Plan area. Please refer also to EIR Section 3.0, *Project Description*, Figure 3.1-1, *Project Location*.

4.14.2.2 Background

With an estimated current (01/01/2018) population of 174,244 persons, the California Department of Finance, Demographic Research Unit (DOF) identifies the City of Ontario as the fourth largest city (by population) in San Bernardino County (behind the Cities of San

¹ The Project site is defined as the area encompassed by the Merrill Commerce Center Specific Plan (the Specific Plan area). The analysis presented in this Environmental Impact Report (EIR) considers and addresses environmental impacts resulting from development of the Project site proper, and also evaluates impacts that would result from off-site activities or improvements necessary to implement and support the Project.

Bernardino, Fontana, and Rancho Cucamonga).² DOF also indicates that the City's 2018 – 2019 resident population increased by approximately 4,024 persons or an approximate 2.3 percent increase.

The Southern California Association of Governments (SCAG) projects the City population will increase to 203,800 by 2020. Population growth is expected to be driven by the development of housing in the New Model Colony, the Ontario Airport Metro Center, and Downtown Ontario; immigration to the City; and increasing household sizes. Projected population growth of the City will not only bring demographic change but also a different type of housing demand. Population estimates presented in the Ontario Policy Plan indicate that Ontario's population could exceed 360,000 under City Buildout conditions (Housing Element Technical Report, p. H-5).

4.14.2.3 Population, Housing, Employment, and Economic Information

Population, housing, employment, and economic information are presented here to determine the effects, if any, of the Project on adopted policies and plans either based on, or forming the basis of, growth forecasts employed in local, regional and/or State plans. These forecasts also provide an indication of the employment/housing balance within the City and surrounding areas.

Projected City and Regional Population, Employment, and Housing Trends

Population, employment, and household estimates for the City of Ontario and San Bernardino County are presented at Table 4.14-1.

² California Department of Finance (DOF). *E-1 Cities, Counties, and the State Population Estimates with Annual Percent Change* — January 1, 2018 and 2019. Web.

<http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/>

**Table 4.14-1
Growth Projections**

| | 2012 | 2020 | 2035 | 2040 |
|------------------------------|-----------|-----------|-----------|-----------|
| San Bernardino County | | | | |
| Population | 2,068,000 | 2,197,400 | 2,637,400 | 2,731,300 |
| Employment | 659,500 | 789,500 | 998,000 | 1,028,100 |
| Households | 615,300 | 687,100 | 824,600 | 854,300 |
| City of Ontario | | | | |
| Population | 166,300 | 197,600 | 248,800 | 258,600 |
| Employment | 103,300 | 129,300 | 170,600 | 175,400 |
| Households | 45,100 | 58,300 | 72,200 | 75,300 |

Source: http://www.scag.ca.gov/Documents/2016_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf

As indicated at Table 4.14-1, between the years 2012 and 2040, the following City of Ontario demographic/housing trends are projected:

- An approximate 56 percent increase in the number of City population;
- Employment within the City is anticipated to increase by approximately 70 percent; and
- An approximate 66 percent increase in households.

Year 2012 to year 2040 projections for San Bernardino County as a whole anticipate an approximately 32 percent increase in population; employment growth of approximately 56 percent; and an approximate 39 percent increase in the number of households.

Recent City of Ontario Population, Housing and Employment Trends

Population

Year 2000–2018 population trends within the City are presented at Table 4.14-2. As indicated, the City’s population has increased by 19,582 or approximately 12.4 percent since 2000.

**Table 4.14-2
City of Ontario Population Trends 2000-2018**

| Year | Population |
|-------------|-------------------|
| 2000 | 158,007 |
| 2002 | 161,051 |
| 2004 | 163,956 |
| 2006 | 163,757 |
| 2008 | 163,951 |
| 2010 | 163,934 |
| 2012 | 166,134 |
| 2014 | 167,382 |
| 2016 | 169,869 |
| 2018 | 177,589 |

Source: <http://www.scag.ca.gov/Documents/Ontario.pdf>

Households

Year 2000–2018 housing trends within the City are presented at Table 4.14-3.

**Table 4.14-3
City of Ontario Housing Trends 2000-2018**

| Year | Households |
|-------------|-------------------|
| 2000 | 43,525 |
| 2002 | 43,654 |
| 2004 | 43,748 |
| 2006 | 44,007 |
| 2008 | 44,673 |
| 2010 | 44,931 |
| 2012 | 45,123 |
| 2014 | 45,270 |
| 2016 | 45,601 |
| 2018 | 47,879 |

Source: <http://www.scag.ca.gov/Documents/Ontario.pdf>

As indicated above, the total number of households within the City increased by 4,354, or 10 percent.

Consistent with California Housing Element requirements, the Policy Plan Housing Element identifies the number and types of local housing required to satisfy the City’s “fair share” of regional housing needs, as determined by the SCAG Regional Housing Needs Assessment (RHNA). The “fair share” allocation ensures that each jurisdiction accepts equitable housing responsibilities for all current and future residents. A jurisdiction’s “fair share” of the regional housing need is the projected total number of additional dwelling units that will be required to accommodate the anticipated growth in households, replace expected demolitions or conversions to other uses, and allow a reasonable vacancy rate providing for healthy functioning of the housing market.

Ontario’s RHNA responsibility assigned by/through SCAG is 10,861 units for the 2013–2021 Housing Element planning period.³ Within this total allocation, the City is required to plan for and otherwise accommodate housing products at three income levels: lower income (includes extremely low, very low and low income), moderate income, and above moderate income. Ontario is required to set aside sufficient land, adopt programs, and provide funding to facilitate and encourage housing production to meet the RHNA income level-based housing unit requirements. The City’s current RHNA Responsibility, expressed in terms of housing units by income level, is presented at Table 4.14-4.

Table 4.14-4
RHNA Responsibility-Housing Units by Income Level
City of Ontario 2013–2021

| Lower Income | Moderate Income | Above Moderate Income | Total |
|--------------|-----------------|-----------------------|--------|
| 4,337 | 1,977 | 4,547 | 10,861 |

Source: Housing Element Technical Report, Table H-38.

³ SCAG is in the process of developing the 6th cycle RHNA allocation plan which will cover the planning period October 2021 through October 2029. It is planned for adoption by SCAG in October 2020. See also: <http://www.scag.ca.gov/programs/Pages/Housing.aspx>.

Employment

Occupations by type within the City as of 2017 are presented at Table 4.14-5.

**Table 4.14-5
Jobs by Sector - 2017**

| Sector | Percentage |
|----------------|------------|
| Professional | 17.6 |
| Transportation | 14.1 |
| Manufacturing | 13.9 |
| Retail | 13.2 |
| Education | 10.3 |
| Wholesale | 9.6 |
| Leisure | 8.5 |
| Construction | 3.8 |
| Finance | 3.1 |
| Other | 2.4 |
| Public | 2.1 |
| Information | 0.7 |
| Agriculture | 0.6 |

Source: <http://www.scag.ca.gov/Documents/Ontario.pdf>

As summarized above, the Professional sector was the largest job sector, accounting for 17.6 percent of jobs within the City. Other major sectors include Transportation (14.1 percent), Manufacturing (13.9 percent), and Retail (13.2 percent).

Total job trends (2007-2017) within the City are presented at Table 4.14-6.

**Table 4.14-6
City of Ontario Job Trends 2007-2017**

| Year | Number of Jobs |
|------|----------------|
| 2007 | 119,188 |
| 2008 | 114,529 |
| 2009 | 108,305 |

**Table 4.14-6
City of Ontario Job Trends 2007-2017**

| Year | Number of Jobs |
|------|----------------|
| 2010 | 107,625 |
| 2011 | 107,402 |
| 2012 | 103,313 |
| 2013 | 106,882 |
| 2014 | 110,084 |
| 2015 | 113,287 |
| 2016 | 110,080 |
| 2017 | 112,688 |

Source: <http://www.scag.ca.gov/Documents/Ontario.pdf>

As shown above, in 2017, there were a total of 112,688 jobs in the City, representing a 5.5 percent decrease since 2007.

Employment/Housing Balance

The concept of employment/housing balance has been widely discussed by SCAG and the South Coast Air Quality Management District (SCAQMD) over the past decade as a means of achieving regional air quality improvement goals. The basic concept is directed at minimizing commute distances, reducing infrastructure needs and costs, mitigating traffic congestion, conserving energy, and improving air quality. SCAG has incorporated employment/housing balance into its growth forecasts, and transportation and air quality policies. Underlying the term employment/housing balance is the premise that, if an area is balanced, it includes the correct number (or balance) of housing and employment opportunities, so that the majority of the people living within a given subregion can also work in that same subregion. Job-rich subregions evidence employment/housing ratios greater than the regional average, and housing-rich subregions evidence employment/housing ratios lower than the regional average.

Determining an appropriate employment/housing balance for any given geographic area is to some degree problematic, in that each locale presents differing demographic characteristics. Employment/housing ratios are also dynamic, and fluctuate over time. For

example, in 1997, the mean or “balanced” employment/housing ratio for the SCAG region was 1.25 jobs/household. Based on regional housing and employment trends, SCAG at that time projected the year 2025 regional employment/housing balance at 1.31 jobs/household.⁴ Varying from both of these measures, The Ontario Plan Draft EIR states:

“ . . . SCAG considers an area balanced when the employment/housing ratio is 1.36; communities with more than 1.36 jobs per dwelling unit are considered jobs-rich and those with fewer than 1.36 are housing-rich (SCAG 2004). Additionally, the DOF estimates that a healthy employment/housing balance is one new home built for every 1.5 jobs created (Job-Center Housing Coalition, The California Alliance for Jobs).”⁵

Tables 4.14-3 and 4.14-6, presented earlier in this Section, identify recent housing (2018) and employment (2017) trends within the City. Based on the data presented within these tables, the employment/housing ratio of the City of Ontario would be 2.35 jobs/housing, which would be considered jobs-rich.

4.14.3 EXISTING POLICIES AND REGULATIONS

4.14.3.1 California Government Code-Housing Element Requirements

California Government Code (Section 65580-65589.8) requires the preparation of a Housing Element as part of each General Plan. As one component of the Ontario Policy Plan, the City adopted a 2013-2021 Housing Element update (Housing Element Technical Report).

4.14.3.2 Ontario Policy Plan Housing Element

As identified above, consistent with State Housing Element law, the City of Ontario has prepared and adopted a 2013–2021 Housing Element update, and to this end has formally

⁴ *The New Economy and Employment/housing Balance in Southern California* (Southern California Association of Governments) April 2001.

⁵ Policy Plan Draft EIR, pp. 5.13-7, 5.13-8

adopted *The Ontario Plan, Policy Plan Housing Element Technical Report* (PMC), adopted October 15, 2013 (*Housing Element Technical Report*).

Certain key provisions and requirements of the 2013–2021 Policy Plan Housing Element (2013–2021 Housing Element) applicable to this analysis are summarized below. The *Housing Element Technical Report* in its entirety is available through the City of Ontario Planning Department, or can be accessed at: <http://www.ontarioplan.org>.

General Requirements

Consistent with State requirements, and for all potentially affected economic levels, the Policy Plan Housing Element identifies available and projected housing assets, provides an assessment of current and anticipated housing needs, and establishes programs to meet those needs.

California Government Code Section 65588 requires that housing elements be updated not less frequently than every eight years, and further that each subsequent housing element identify progress achieved since adoption of the preceding housing element. The 2013–2021 Housing Element update reflects these requirements, and identifies progress in terms of achieving numerical targets for the total number of housing units required, and continuing development and implementation of programs and plans providing for successful realization of housing needs.

Regional Housing Needs Assessment

Pursuant to Government Code (GC) 65584 applicable to the Regional Housing Need Allocation (RHNA) process, the California Department of Housing and Community Development (HCD) is required to determine the RHNA, by income category, for Council of Governments (COGs). The RHNA is based on Department of Finance population projections and regional population forecasts used in preparing regional transportation plans. COGs are required to allocate to each locality a share of housing need totaling the

RHNA for each income category. Pursuant to GC 65584, localities are required to update their housing element to plan to accommodate its entire RHNA share by income category.⁶

Consistent with the requirements outlined above, the City of Ontario 2013-2021 Housing Element identifies quantities and types of local housing required to satisfy the City's "fair share" of regional housing needs, as determined by the SCAG RHNA. The intent of the SCAG RHNA "fair share" allocation is that each jurisdiction accept its equitable housing responsibilities for all current and future residents. A jurisdiction's "fair share" of the regional housing need is the projected total number of additional dwelling units that will be required to accommodate the anticipated growth in households, replace expected demolitions or conversions to other uses, and allow a reasonable vacancy rate providing for healthy functioning of the housing market. The City's 2013-2021 Housing Element RHNA Requirements, by income level, are presented at previous Table 4.14-4.

RHNA Residential Density Reduction Restrictions

Government Code Section 65863 (excerpted in pertinent part below) furthers establishment of affordable housing by ensuring that residential development satisfying a jurisdiction's identified housing element RHNA are not unduly "down-zoned" or redirected for other purposes.

65863. (a) Each city, county, or city and county shall ensure that its housing element inventory described in paragraph (3) of subdivision (a) of Section 65583 or its housing element program to make sites available pursuant to paragraph (1) of subdivision (c) of Section 65583 can accommodate its share of the regional housing need pursuant to Section 65584, throughout the planning period.

(b) No city, county, or city and county shall, by administrative, quasi-judicial, legislative, or other action, reduce, or require or permit the reduction of, the

⁶ *Housing Elements and Regional Housing Need Allocation*. California Department of Housing and Community Development. Web. October 7, 2014. <https://www.hcd.ca.gov/community-development/housing-element/index.shtml>

residential density for any parcel to, or allow development of any parcel at, a lower residential density, as defined in paragraphs (1) and (2) of subdivision (g), unless the city, county, or city and county makes written findings supported by substantial evidence of both of the following:

(1) The reduction is consistent with the adopted general plan, including the housing element.

(2) The remaining sites identified in the housing element are adequate to accommodate the jurisdiction's share of the regional housing need pursuant to Section 65584.

(c) If a reduction in residential density for any parcel would result in the remaining sites in the housing element not being adequate to accommodate the jurisdiction's share of the regional housing need pursuant to Section 65584, the jurisdiction may reduce the density on that parcel if it identifies sufficient additional, adequate, and available sites with an equal or greater residential density in the jurisdiction so that there is no net loss of residential unit capacity.

(d) The requirements of this section shall be in addition to any other law that may restrict or limit the reduction of residential density.

4.14.3.3 Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) Goals

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. As the Metropolitan Planning Organization (MPO) for San Bernardino County, SCAG prepares a Regional Transportation Plan (RTP) pursuant to federal and state requirements. On April 7, 2016, SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The 2016–2040 RTP/SCS vision encompasses a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2016 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards. This long-range plan, required by the state of California and the federal government, is updated

by SCAG every four years as demographic, economic, and policy circumstances change. The Project's consistency with the applicable 2016–2040 RTP/SCS goals is summarized at EIR Section 4.1, *Land Use and Planning*, Table 4.1-6.

4.14.4 STANDARDS OF SIGNIFICANCE

Appendix G of the California Environmental Quality Act Guidelines (*CEQA Guidelines*), as utilized by the City of Ontario, indicates a Project will normally have a significant effect related to population and housing if it would:

- Induce substantial unplanned population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension or roads or other infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

4.14.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.14.5.1 Introduction

The following discussions focus on those areas where it has been determined that the Project may result in potentially significant population and housing impacts, based on the previous discussions included within this Section and analysis presented within the EIR Initial Study (EIR Appendix A). As discussed within the Initial Study, the Project would not result in potentially significant impacts under the following consideration:

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

This potential impact is therefore not substantively discussed further within this Section. Please refer also to Initial Study Checklist Item XIV. *Population and Housing*.

4.14.5.2 Impact Statements

Potential Impact: *Induce substantial unplanned population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure).*

Impact Analysis:

Direct Population Growth Inducement

The Project does not propose residential development, and therefore would not directly result in increased City resident population. The Project represents a component of development and growth generally anticipated by the City, as reflected by the site's current Policy Plan Land Use designations (Business Park, Office Commercial, and General Commercial). Development proposed by the Project responds globally to existing and anticipated market demands of the City and region, and employment generated by the Project would be a byproduct of this anticipated growth.

Indirect Growth Inducement

Indirect population growth inducement would result from creation of additional jobs and the extension of infrastructure and services to areas not currently served, or substantial capacity/capability upgrades to existing systems and services.

Job Creation

In general terms, job creation furthers growth via wages, salaries and general fiscal benefits; increased demands for housing; and increased demands for housing, and consumer goods and services.

**Table 4.14-7
Employment Comparison
Existing Policy Plan Land Uses vs. Project Land Uses**

| Land Use/Area | FAR/Maximum Bldg. Area (TSF) | Job Mixture | Employment Factor (Jobs/1000 SF) | Employment |
|---------------------------------------|------------------------------|------------------|----------------------------------|---------------|
| Existing Policy Plan Land Uses | | | | |
| Business Park/ 303.5 Acres | 0.60 FAR/ 7,932 TSF | Non-Office (50%) | 0.650 | 2,578 |
| | | Office (50%) | 2.860 | 11,343 |
| Office Commercial 43.3 acres | 0.75 FAR/ 1,415 TSF | Non-Office (30%) | 0.718 | 305 |
| | | Office (70%) | 2.860 | 2,833 |
| General Commercial/ 18.3 acres | 0.40 FAR/ 319 TSF | Non-Office (90%) | 0.718 | 206 |
| | | Office (10%) | 2.860 | 91 |
| Right-of-way-Other/ 11.2* Acres | --- | --- | --- | --- |
| Total Employment | | | | 17,356 |
| Project Land Uses | | | | |
| Business Park:/ 55.1 acres | 0.60 FAR/ 1,441 TSF | Non-Office (50%) | 0.650 | 468 |
| | | Office (50%) | 2.860 | 2,061 |
| Industrial/ 292.8 acres | 0.55 FAR/ 7,014 TSF | Non-Office (90%) | 0.650 | 4,103 |
| | | Office (10%) | 2.860 | 2,006 |
| Right-of-way-Other/ 28.4 Acres | --- | --- | --- | --- |
| Total Employment | | | | 8,638 |

Sources: Land Use Floor Area Ratio (FAR) development intensities from: The Ontario Plan Table LU-02 *Land Use Designations Summary* (City of Ontario) Amended March 2017. Job Mixture and Employment Factors from The Ontario Plan, *Buildout Methodology* (City of Ontario) Revised April 2015.

As summarized at Table 4.14-7, the Project would create an estimated 8,638 new jobs. As indicated, Project job creation would not exceed the Policy Plan employment forecasts for the subject site. Project employment and any associated growth are therefore reflected in the Policy Plan and impacts of such growth are considered and addressed in the Policy Plan EIR. Project job creation and associated growth would not result in impacts not already considered and addressed in the Policy Plan EIR.

Infrastructure Improvements

The Project would implement infrastructure improvements that are consistent with the City and purveyor master plans. Please refer to the discussion of Project improvements presented at EIR Section 3.0 *Project Description*, 3.4.3.2 *Access and Circulation*, 3.4.3.3 *Utilities Infrastructure*; and EIR Section 4.12 *Utilities and Services*. Infrastructure improvements

implemented by the Project would not only support the Project uses, but would also extend to and expand infrastructure available to off-site undeveloped portions of the City. The Project infrastructure improvements would be considered growth-inducing in that these improvements would facilitate development of currently undeveloped areas of the City. More specifically, Project infrastructure improvements would likely allow for and encourage development of the Ontario Ranch area of the City.

Ultimate development of off-site areas served by the Project infrastructure improvements would be governed by the Ontario Policy Plan [General Plan]. Environmental impacts of growth that would result from buildout of the City pursuant to the Policy Plan have been previously evaluated and addressed in the General Plan EIR. Growth that may result from or be facilitated by the Project infrastructure improvements would not result in impacts not previously considered and addressed in the General Plan EIR.

SCAG Regional Population Growth Projections

SCAG population growth projections reflect assumptions and development scenarios incorporated in local plans including City general plans. As demonstrated in the preceding discussions, the Project would not induce or generate growth beyond that reflected in the City's Policy Plan and associated Policy Plan EIR. Accordingly, the Project would not result in growth not already anticipated within SCAG population growth projections for the region.

Summary

The Project would induce growth through job creation, and the construction of infrastructure improvements.

Project job creation would not exceed employment projections developed under the Policy Plan. Growth resulting from Project job creation is anticipated under the Policy Plan, and such growth would not result in environmental impacts not already considered and addressed in the Policy Plan EIR.

Growth resulting from or facilitated by Project infrastructure improvements is anticipated under the Policy Plan, and environmental impacts attributable to such growth is considered and addressed in the Policy Plan EIR.

Additionally, the Policy Plan EIR notes that while the City of Ontario is jobs-rich, the subregion as a whole is housing-rich. The Policy Plan EIR concludes that buildout of the Ontario Plan would act to improve the job/housing balance within the subregion.

Based on the preceding discussions, the potential for the Project to induce substantial population growth in the area, either directly or indirectly is considered less-than-significant.

Level of Significance: Less-Than-Significant.

5.0 OTHER CEQA CONSIDERATIONS

5.0 OTHER CEQA CONSIDERATIONS

This Section of the EIR addresses other environmental considerations and topics mandated under the California Environmental Quality Act (CEQA). These topics include Cumulative Impacts, Alternatives to the Project, Growth Inducement, Significant Environmental Effects of the Project, and Significant and Irreversible Environmental Changes.

5.1 CUMULATIVE IMPACT ANALYSIS

The *CEQA Guidelines (Guidelines)* require that an EIR identify any significant cumulative impacts associated with a project [*Guidelines*, Section 15130 (a)]. When potential cumulative impacts are not deemed significant, the document should explain the basis for that conclusion. Cumulative impacts are “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” [*CEQA Guidelines*, Section 15355]. A legally adequate cumulative impact analysis comprises an analysis of a project viewed over time and in the context of other related past, present, and foreseeable probable future projects, whose impacts might compound or interrelate with those of the Project considered here.

CEQA notes that the discussion of cumulative impacts should be guided by standards of practicality and reasonableness [*Guidelines*, Section 15130 (b)]. Only those projects whose impacts might compound or interrelate with those of the Project under consideration require evaluation. CEQA does not require as much detail in the analysis of cumulative environmental impacts as must be provided for the Project alone.

The *Guidelines* identify two basic methods for satisfying the cumulative impacts analysis requirement: the list-of-projects methodology, and the summary-of-projections methodology. Because each environmental resource is affected by its surroundings in different manners, either of the two methodologies, or a combination of both, may be applied to the analysis of cumulative impacts to each resource. For example, because the approval process and construction phase of development typically takes at least one to two years, the list-of-projects method is likely to provide a more accurate projection of growth in the near term. This method may overstate potential cumulative impacts because the considered list-of-projects may include proposals that will never be developed. Similarly, because development proposals are rarely publicly known until within five (5) years of the expected development, the summary-of-projections method provides a more accurate projection of growth over the long term. This method may not accurately predict growth in any given year but aggregates various growth trends over the long term.

Where appropriate to the analysis in question, cumulative impacts are assessed with reference to a list of off-site “related projects,” as described at *CEQA Guidelines* §15130(b). In this manner, the EIR appropriately characterizes and evaluates potential cumulative impacts. Consistent with direction provided in the *CEQA Guidelines*, related projects considered in these cumulative analyses are “only those projects whose impacts might compound or interrelate with those of the Project under consideration require evaluation.” In this regard, it is recognized that within the context of the cumulative impacts analysis, varied criteria are employed in determining the scope and type of “cumulative projects” considered. For example, the analysis of cumulative transportation/traffic impacts evaluates the Project’s transportation/traffic impacts in the context of other known or probable “related” development proposals that would discernibly affect traffic conditions within the Transportation Analysis Study Area. As another example, cumulative air quality impacts are considered in terms of the Project’s contribution to other air emissions impacts affecting the encompassing Air Basin.

For each topical discussion, the cumulative geographic context is identified. This in turn relates to the amount and type of growth that is anticipated to occur within the geographic area under consideration. The way each resource may be affected also dictates the geographic scope of the cumulative impact analysis.

5.1.1 Discussion of Cumulative Impacts

Section 15139(a) of the *Guidelines* notes that “an EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable, as defined at *Guidelines* Section 15065(c). Where a lead agency is examining a project with an incremental effect that is not ‘cumulatively considerable,’ a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.” Potential cumulative impacts for each of the EIR Sections are presented here.

For certain other areas of consideration, Project impacts are substantiated to be less-than-significant or less-than-significant as mitigated (please refer to the Initial Study, EIR Appendix A). Further, under these topics, there are no known or anticipated projects or conditions whose impacts might compound or interrelate with those of the Project, and thereby result in potentially significant cumulative impacts. No further substantive analysis is provided under these topics. These topics include:

AESTHETICS. Potential to:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway.
- In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings.

- Create a new source of substantial light or glare, which would adversely affect the day or nighttime views in the area.

AGRICULTURE AND FOREST RESOURCES. Potential to:

- Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned "Timberland Production."
- Result in the loss of forest land or conversion of forest land to non-forest use.
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

AIR QUALITY. Potential to:

- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

CULTURAL RESOURCES. Potential to:

- Disturb any human remains, including those interred outside of formal cemeteries.

GEOLOGY AND SOILS. Potential to:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault.
- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving landslides.

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

HAZARDS AND HAZARDOUS MATERIALS. Potential to:

- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

HYDROLOGY AND WATER QUALITY. Potential to:

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.

LAND USE AND PLANNING. Potential to:

- Physically divide an established community.

MINERAL RESOURCES. Potential to:

- Result in the loss of availability of a known mineral resource that would be of value to the region and to the residents of the state.
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

POPULATION AND HOUSING. Potential to:

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

PUBLIC SERVICES. Potential to:

Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities the construction of which could cause significant environmental impacts for any of the public services:

- Fire Protection
- Police Protection
- Schools
- Parks
- Other public facilities

RECREATION. Potential to:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

WILDFIRE. Potential to:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.

- Exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

5.1.1.1 Land Use and Planning - Cumulative Impacts

The cumulative impact area when considering potential cumulative land use and planning issues includes areas that are currently under City jurisdiction, and subject to provisions of The City of Ontario Policy Plan (General Plan), City of Ontario Zoning Ordinance, and/or other City Special Planning Documents (e.g., Specific Plans). The analysis presented here also considers the Project in the context of the land use/planning guidance included in the 2012-2035 Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy (2012-2035 SCAG RTP/SCS).

Policy Plan Considerations

In order to accommodate land uses and development concepts proposed by the Project, the Policy Plan Land Use Element would be amended as summarized at Table 5.1-1. Approval of Policy Plan Land Use Element Amendments are requested as components of the Project Discretionary Actions (please refer to EIR Section 3.6.1, *Discretionary Actions*).

**Table 5.1-1
Proposed Policy Plan (Land Use Element) Amendments**

| Existing | Proposed |
|---------------------------------|----------------------------|
| Business Park – 314.7 acres | Business Park - 55.1 acres |
| Office Commercial - 43.3 acres | Industrial - 292.8 acres |
| General Commercial - 18.3 acres | Circulation - 28.4 acres |
| Total: 376.3 Acres | Total: 376.3 Acres |

The proposed Policy Plan Land Use Amendments would alter the types of land uses allowed within the subject site. Notwithstanding, as substantiated at EIR Section 4.1, *Land Use and Planning*, land uses and development concepts proposed by the Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Zoning Considerations

The existing Zoning designation of the Project site is “Specific Plan” (SP) with an “AG” (Agriculture) Overlay. The Specific Plan Zoning district accommodates the adoption of Specific Plans pursuant to the City Development Code. Consistent with the provisions of the Project site’s current Specific Plan Zoning, the Project would be implemented under the provisions and requirements of a Specific Plan (the proposed Merrill Commerce Center Specific Plan). The *Merrill Commerce Center Specific Plan* (Specific Plan) is presented in its entirety at EIR Appendix B. If adopted by the City, the Specific Plan comprise the zoning for the subject site, and would regulate all development within the site. Where the Specific Plan is silent, regulations and requirements of the City Development Code would prevail.

The proposed Specific Plan would establish land use plans, development standards, and design guidelines directing the ultimate buildout of the Project site. Land uses and development concepts reflected within the proposed Specific Plan can be feasibly implemented consistent with applicable provisions of the Policy Plan Land Use Element (as amended) and City Development Code. Prior to issuance of building permits, the City would review the final development plans for individual projects within the Specific Plan Area to ensure consistency with the Specific Plan land use plans, development standards, design guidelines; and where applicable, City Development Code requirements.

The site’s current Agricultural Overlay is intended only to accommodate interim continuation of agricultural uses within the City, until such time that development is slated to occur consistent with the Policy Plan and the underlying Specific Plan zoning district. Because the Project would implement a Specific Plan development that would be

consistent with the Policy Plan as amended under the Project, the Project would have no impact on agricultural zoning designations. If the proposed Specific Plan is approved by the City, the site's current Agricultural Overlay designation would no longer be appropriate and would be removed.

Other related projects within the cumulative impact area would be required to comply with requirements of necessary land use and planning discretionary actions and permits. Mitigation would be incorporated if necessary. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on the preceding discussion, the Project's potential contribution to cumulative land use and planning impacts is not considerable, and the cumulative effects of the Project are less-than-significant.

5.1.1.2 Transportation - Cumulative Impacts

The Project Vehicle Miles Traveled (VMT) Assessment cumulative impact area coincides with relevant Transportation Analysis Model Traffic Analysis Zones (TAZs).

Cumulative VMT Impacts

As summarized in *WRCOG SB 743 Implementation Pathway Document Package . . .* "VMT thresholds based on an efficiency form of the metric such as VMT per capita, can address project and cumulative impacts in a similar manner that some air districts do for criteria pollutants and GHGs (*WRCOG SB 743 Implementation Pathway Document Package, p. 67*). In this respect, significant and unavoidable VMT impacts at the Project level would also be considered cumulatively significant and unavoidable.

As discussed at EIR Section 4.2, *Transportation*, Project VMT impacts based on a VMT/SP metric would be significant and unavoidable at the Project level, and therefore would also be cumulatively significant and unavoidable. This conclusion is consistent with the determination that would be reached employing the City's cumulative analysis threshold wherein a "[cumulatively] significant impact would occur if the project caused total daily

VMT within the City to be higher than the no project [no build] alternative under cumulative conditions.”

Other Transportation Topics

Potential to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Project impacts in the context of circulation system programs/plans/ordinances/policies related VMT are addressed in the preceding discussions. Cumulatively significant and unavoidable VMT impacts are identified. The Project does not otherwise propose facilities or activities that would potentially conflict with applicable circulation system programs, plans, ordinances, and policies.

Other related projects within the cumulative impact area would similarly be required to demonstrate compliance with applicable circulation system programs, plans, ordinances, and policies, thereby minimizing potential cumulative impacts. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Other than cumulative VMT impacts identified herein, the Project’s contribution to cumulative impacts related to a potential conflict with a program, plan, ordinance, or policy addressing the circulation system would be less-than-significant and not cumulatively considerable. Please refer also to the discussions of potential transportation plans/policies conflicts presented at EIR Section 4.2, *Transportation*.

Potential to Create or Result in Transportation/Traffic Hazards or Result in Inadequate Emergency Access

The Project does not propose or require uses, designs, or features that would create or result in transportation/traffic hazards, or that would result in or cause inadequate emergency access. The Project would be required to comply with City traffic design and engineering standards acting to minimize the potential for the Project to result in transportation/traffic hazards or inadequate emergency access. Other related projects

within the cumulative impact area would similarly be required to conform with City traffic design and engineering standards, thereby minimizing potential cumulative impacts. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on the preceding, the Project's potential contribution to cumulative impacts regarding increased transportation/traffic hazards and/or emergency access provisions are not considerable, and the cumulative effects of the Project are less-than-significant. Please refer also to the discussions of potential hazardous designs/emergency access impacts presented at EIR Section 4.2, *Transportation*.

5.1.1.3 Air Quality - Cumulative Impacts

The cumulative impact area for air quality considerations is generally defined by the encompassing Air Basin and boundaries of the jurisdictional air quality management agency. In this case, the South Coast Air Basin (SCAB, Air Basin) and the South Coast Air Quality Management District (SCAQMD), respectively. Project emissions within the context of SCAQMD's regional emissions thresholds provide an indicator of potential cumulative impacts within the jurisdictional Air Basin. Due to the defining geographic and meteorological characteristics of the Air Basin, criteria pollutant emissions that could cumulatively impact air quality would be, for practical purposes, restricted to the Air Basin. Accordingly, the geographic area encompassed by the Air Basin is the appropriate limit for this cumulative air quality analysis.

Construction-Source Air Quality Impacts

As discussed at EIR Section 4.3, *Air Quality*, with application of mitigation, Project maximum daily construction-source emissions would not exceed applicable SCAQMD

regional thresholds and would therefore be less-than-significant. Per SCAQMD criteria, Project-level impacts that are less-than-significant are not cumulatively considerable.¹

Other related projects within the cumulative impact area would be required to minimize construction-source air pollutant emissions consistent with SCAQMD programs and strategies, thereby minimizing potential cumulative impacts. Mitigation would be implemented, if applicable.

Operational-Source Air Quality Impacts

Even with application of mitigation, Project operational-source VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions would exceed applicable SCAQMD regional thresholds. The Basin encompassing the Project site is designated as non-attainment for ozone, PM₁₀, and PM_{2.5} (VOC and NO_x are both ozone precursors; NO_x is a precursor to PM₁₀/PM_{2.5}). Project operational-source VOC, NO_x, PM₁₀, and PM_{2.5} emissions threshold exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone and PM₁₀/PM_{2.5}) for which the Project region is non-attainment. These are cumulatively significant and unavoidable air quality impacts.

Other related projects within the cumulative impact area would be required to minimize operational-source air pollutant emissions consistent with SCAQMD programs and strategies, thereby minimizing potential cumulative impacts. Mitigation would be implemented, if applicable.

Overlapping Construction-Source and Operational-Source Emissions

This EIR also evaluates air quality impacts that could occur under conditions where Project construction-source emissions could potentially overlap with Project operational-source emissions. The resulting overlapping emissions would not exceed maximum

¹ The SCAQMD recognizes that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple independent projects because each project applicant has no control over other projects. Per SCAQMD criteria, development proposals that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

operational-source emissions generated under Project buildout conditions, and cumulative effects would not be greater than or substantially different than those noted under the heading *Operational-Source Air Quality Impacts* above.

AQMP Consistency Impacts

A change in Policy Plan Land Use designations is proposed by the Project. It is assumed that the emissions generated by the Project's proposed land uses are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is assumed to conflict with the 2016 AQMP. This is a significant and unavoidable impact. Per SCAQMD criteria, Project-level impacts that are significant are also cumulatively considerable.

Other related projects within the cumulative impact area would be required to minimize potential AQMP inconsistencies consistent with SCAQMD programs and strategies, thereby minimizing potential cumulative impacts. Mitigation would be implemented, if applicable.

CO Hotspot Impacts

The potential for the Project to cause or result in potential CO hotspot impacts would be less-than-significant. Per SCAQMD criteria, less-than-significant impacts at the Project level are not cumulatively considerable. The potential for Project CO emissions to result in or cause cumulatively significant CO hotspot impacts is therefore considered less-than-significant.

Other related projects within the cumulative impact area would be required to minimize potential CO hotspot impacts consistent with SCAQMD programs and strategies, thereby minimizing potential cumulative impacts. Mitigation would be implemented, if applicable.

Health Risk Impacts

Potential carcinogenic and non-carcinogenic health risk impacts resulting from Project construction and operations would be less-than-significant. Per SCAQMD criteria, less-than-significant impacts at the Project level are not cumulatively considerable. The potential for Project air pollutant emissions to result in or cause cumulatively significant health risk impacts is therefore considered less-than-significant.

Other related projects within the cumulative impact area would be required to minimize potential health risk impacts consistent with SCAQMD programs and strategies, thereby minimizing potential cumulative impacts. Mitigation would be implemented, if applicable.

5.1.1.4 GHG Emissions/Global Climate Change - Cumulative Impacts

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (*CEQA Guidelines* Section 15130(f)). The EIR Greenhouse Gas (GHG) Analysis is by nature a cumulative analysis. Because GHG emissions and climate change are global issues, any approved project regardless of its location has the potential to contribute to a cumulative global accumulation of GHG emissions. The geographic context of the cumulative contributions to GHGs and climate change is worldwide. Practically however, lead agencies and responsible agencies are only able to regulate GHG emissions within their respective jurisdictions. Accordingly, for the purposes of this analysis, the cumulative impact area for GHG/Global Climate Change considerations is the City of Ontario and the encompassing SCAQMD jurisdictional area.

As discussed at EIR Section 4.4, *Greenhouse Gas Emissions*, even after application of mitigation, the Project could directly or indirectly generate GHG emissions that may have a significant impact on the environment. Further, the Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. These are significant and unavoidable impacts. The Project's potential to contribute considerably (either individually or cumulatively) to global

climate change impacts through GHG emissions is therefore considered significant and unavoidable.

Other related projects within the cumulative impact area would be required to minimize potential GHG emissions impacts consistent applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions, thereby minimizing potential cumulative GHG emissions impacts. Mitigation would be implemented, if applicable.

5.1.1.5 Noise/Vibration - Cumulative Impacts

The cumulative impact area for noise/vibration considerations is generally defined as surrounding properties that could receive Project-generated noise/vibration (either construction or operational), and would also include roadway corridors affected by Project-related traffic and associated vehicular noise/vibration. Potential noise/vibration impacts of the Project are discussed at EIR Section 4.5, *Noise*.

Construction-Source Noise/Vibration

Noise levels associated with the construction of off-site master plan infrastructure improvements would remain significant and unavoidable even with the application of mitigation. For the duration of off-site infrastructure construction activities, these impacts would also be cumulatively significant and unavoidable.

Other related projects within the cumulative impact area would be required to mitigate construction-source noise impacts that could affect sensitive receptors, thereby minimizing potential cumulative construction-source noise impacts.

Project construction-source vibration levels received at area land uses would be less-than-significant. There are no known or probable related projects that would interact with the Project's less-than-significant construction-source vibration impacts and thereby result in cumulatively significant impacts.

Operational Noise/Vibration - Area Sources

The Project's area-source operational noise levels would be less-than-significant as mitigated. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Further, Project operational-source noise in combination with ambient noise would not result in cumulatively significant noise impacts. In this latter regard, the peak mitigated Project operational-source noise levels when added to ambient conditions would not exceed the maximum acceptable day/night ambient condition.

Other related projects within the cumulative impact area would be required to mitigate operational area-source noise impacts that could affect sensitive receptors, thereby minimizing potential cumulative operational-source noise impacts.

Project operational-source vibration levels received at area land uses would be less-than-significant. There are no known or probable related projects that would interact with the Project's less-than-significant operational-source vibration impacts and thereby result in cumulatively significant impacts.

Operational Noise - Mobile Sources

Cumulative effects of mobile-source noise are demonstrated by comparing noise levels under Existing Conditions (2019) without the Project, to noise levels with the completed Project under Horizon Year Conditions (2040). Cumulative mobile-source noise increases within the Study Area are summarized at Table 5.1-2. Applicable noise thresholds for each roadway segment, reflecting ambient conditions and presence/absence of sensitive receptors is also identified.

**Table 5.1-2
Cumulative Mobile-Source Noise Increases**

| ID | Road | Segment | CNEL at Affected Property Line | | | | | Is receptor noise-sensitive? | Threshold |
|----|----------------------|---------------------------|--------------------------------|------------------|-----------------|--------------------------|------------------------|------------------------------|-----------|
| | | | Existing | 2040 w/o Project | 2040 w/ Project | Max. Cumulative Increase | Max. Project Increment | | |
| 1 | Euclid Av. | n/o SR-60 | 80.7 | 81.7 | 81.7 | 1.0 | 0.0 | Yes | 1.5 |
| 2 | Euclid Av. | n/o SR-60 EB Ramps | 81.5 | 83.0 | 83.5 | 2.0 | 0.5 | No | 3.0 |
| 3 | Euclid Av. | n/o Walnut Av. | 81.6 | 83.1 | 83.6 | 2.0 | 0.5 | No | 3.0 |
| 4 | Euclid Av. | n/o Riverside Dr. | 81.3 | 82.8 | 83.4 | 2.1 | 0.6 | Yes | 1.5 |
| 5 | Euclid Av. | n/o Chino Av. | 80.8 | 82.7 | 83.3 | 2.5 | 0.6 | Yes | 1.5 |
| 6 | Euclid Av. | n/o Schaefer Av. | 81.1 | 82.7 | 83.3 | 2.2 | 0.6 | Yes | 1.5 |
| 7 | Euclid Av. | n/o Edison Av. | 81.4 | 83.0 | 83.5 | 2.1 | 0.5 | No | 3.0 |
| 8 | Euclid Av. | n/o Eucalyptus Av. | 81.0 | 82.7 | 83.3 | 2.3 | 0.6 | No | 3.0 |
| 9 | Euclid Av. | n/o Merrill Av. | 82.8 | 84.6 | 85.1 | 2.3 | 0.5 | No | 3.0 |
| 10 | Euclid Av. | n/o Kimball Av. | 83.0 | 84.5 | 84.9 | 1.9 | 0.4 | Yes | 1.5 |
| 11 | Euclid Av. | n/o Bickmore Av. | 81.1 | 83.4 | 83.8 | 2.7 | 0.4 | No | 3.0 |
| 12 | Euclid Av. | n/o Pine Av. | 81.0 | 82.9 | 83.5 | 2.5 | 0.6 | No | 3.0 |
| 13 | Euclid Av. | s/o Pine Av. | 83.6 | 85.1 | 85.4 | 1.8 | 0.3 | Yes | 1.5 |
| 14 | Grove Av. | n/o SR-60 | 79.6 | 80.6 | 80.7 | 1.1 | 0.1 | No | 3.0 |
| 15 | Grove Av. | n/o SR-60 EB Ramps | 78.7 | 80.6 | 80.7 | 2 | 0.1 | No | 3.0 |
| 16 | Grove Av. | n/o Walnut Av. | 77.8 | 79.4 | 79.4 | 1.6 | 0 | Yes | 1.5 |
| 17 | Grove Av. | n/o Riverside Dr. | 76.2 | 77.8 | 77.9 | 1.7 | 0.1 | Yes | 1.5 |
| 18 | Grove Av. | n/o Chino Av. | 76.3 | 77.5 | 77.6 | 1.3 | 0.1 | Yes | 1.5 |
| 19 | Grove Av. | n/o Schaefer Av. | 75.8 | 77.1 | 77.2 | 1.4 | 0.1 | Yes | 1.5 |
| 20 | Grove Av. | n/o Edison Av. | 75.3 | 76.6 | 76.7 | 1.4 | 0.1 | Yes | 1.5 |
| 21 | <i>Grove Av.</i> | <i>n/o Eucalyptus Av.</i> | 75.2 | 77.7 | 78.0 | 2.8 | 0.3 | Yes | 1.5 |
| 22 | Grove Av. | n/o Street A | 73.7 | 76.7 | 76.7 | 3 | 0 | Yes | 1.5 |
| 23 | Grove Av. | n/o Merrill Av. | 73.7 | 76.7 | 76.7 | 3 | 0 | No | 3.0 |
| 24 | Archibald Av. | n/o SR-60 | 79.5 | 81.0 | 81.0 | 1.5 | 0 | No | 3.0 |
| 25 | Archibald Av. | n/o SR-60 EB Ramps | 79.6 | 81.0 | 81.0 | 1.4 | 0 | No | 3.0 |
| 26 | Archibald Av. | n/o Riverside Dr. | 79.6 | 80.2 | 80.7 | 1.1 | 0.5 | Yes | 1.5 |
| 27 | <i>Archibald Av.</i> | <i>n/o Chino Av.</i> | 79.2 | 80.5 | 81.0 | 1.8 | 0.5 | Yes | 1.5 |
| 28 | <i>Archibald Av.</i> | <i>n/o Schaefer Av.</i> | 79.1 | 81.4 | 81.9 | 2.8 | 0.5 | Yes | 1.5 |
| 29 | <i>Archibald Av.</i> | <i>n/o Edison Av.</i> | 79.1 | 80.7 | 81.3 | 2.2 | 0.6 | Yes | 1.5 |
| 30 | <i>Archibald Av.</i> | <i>n/o Eucalyptus Av.</i> | 80.0 | 81.6 | 82.4 | 2.4 | 0.8 | Yes | 1.5 |

**Table 5.1-2
Cumulative Mobile-Source Noise Increases**

| ID | Road | Segment | CNEL at Affected Property Line | | | | | Is receptor noise-sensitive? | Threshold |
|----|-------------------|---------------------|--------------------------------|------------------|-----------------|--------------------------|------------------------|------------------------------|-----------|
| | | | Existing | 2040 w/o Project | 2040 w/ Project | Max. Cumulative Increase | Max. Project Increment | | |
| 31 | Archibald Av. | n/o Merrill Av. | 80.0 | 81.6 | 82.4 | 2.4 | 0.8 | Yes | 1.5 |
| 32 | Archibald Av. | n/o Limonite Av. | 80.1 | 82.4 | 82.6 | 2.5 | 0.2 | Yes | 1.5 |
| 33 | Archibald Av. | n/o Schleisman Rd. | 74.5 | 75.5 | 75.6 | 1.1 | 0.1 | Yes | 1.5 |
| 34 | Archibald Av. | s/o Schleisman Rd. | 73.9 | 74.8 | 74.8 | 0.9 | 0 | Yes | 1.5 |
| 35 | Edison Av. | w/o Pipeline Av. | 79.3 | 80.7 | 80.8 | 1.5 | 0.1 | No | 3.0 |
| 36 | Edison Av. | w/o Ramona Av. | 78.6 | 79.6 | 79.6 | 1 | 0 | No | 3.0 |
| 37 | Edison Av. | w/o Central Av. | 77.7 | 78.8 | 78.9 | 1.2 | 0.1 | No | 3.0 |
| 38 | Edison Av. | w/o Mountain Av. | 78.3 | 80.5 | 80.5 | 2.2 | 0 | Yes | 1.5 |
| 39 | Edison Av. | w/o San Antonio Av. | 77.6 | 79.9 | 79.9 | 2.3 | 0 | Yes | 1.5 |
| 40 | Edison Av. | w/o Euclid Av. | 76.6 | 80.0 | 80.0 | 3.4 | 0 | No | 3.0 |
| 41 | Edison Av. | e/o Euclid Av. | 77.7 | 83.9 | 84.0 | 6.3 | 0.1 | Yes | 1.5 |
| 42 | Edison Av. | w/o Grove Av. | 76.9 | 84.3 | 84.4 | 7.5 | 0.1 | Yes | 1.5 |
| 43 | Edison Av. | w/o Walker Av. | 78.1 | 83.5 | 83.5 | 5.4 | 0 | Yes | 1.5 |
| 44 | Edison Av. | w/o Archibald Av. | 78.2 | 84.0 | 84.1 | 5.9 | 0.1 | Yes | 1.5 |
| 45 | Edison Av. | w/o Haven Av. | 80.0 | 82.4 | 82.9 | 2.9 | 0.5 | Yes | 1.5 |
| 46 | Edison Av. | e/o Haven Av. | 80.2 | 82.6 | 83.2 | 3 | 0.6 | Yes | 1.5 |
| 47 | Ontario Ranch Rd. | e/o Hamner Av. | 77.7 | 78.9 | 79.4 | 1.7 | 0.5 | No | 3.0 |
| 48 | Eucalyptus Av. | w/o Bon View Av. | 69.6 | 71.5 | 71.6 | 2 | 0.1 | Yes | 1.5 |
| 49 | Eucalyptus Av. | w/o Flight Av. | 66.2 | 73.6 | 74.0 | 7.8 | 0.4 | Yes | 1.5 |
| 50 | Eucalyptus Av. | e/o Flight Av. | 66.5 | 68.2 | 69.4 | 2.9 | 1.2 | Yes | 1.5 |
| 51 | Eucalyptus Av. | w/o Vineyard Av. | 66.5 | 73.4 | 73.7 | 7.2 | 0.3 | Yes | 1.5 |
| 52 | Eucalyptus Av. | e/o Vineyard Av. | 66.5 | 73.0 | 73.0 | 6.5 | 0 | Yes | 1.5 |
| 53 | Merrill Av. | e/o Euclid Av. | 75.9 | 77.8 | 80.0 | 4.1 | 2.2 | No | 3.0 |
| 54 | Merrill Av. | w/o Grove Av. | 76.7 | 78.4 | 80.3 | 3.6 | 1.9 | No | 3.0 |
| 55 | Merrill Av. | e/o Grove Av. | 76.6 | 78.5 | 80.1 | 3.5 | 1.6 | No | 3.0 |
| 56 | Merrill Av. | e/o Flight Av. | 77.0 | 78.8 | 80.3 | 3.3 | 1.5 | No | 3.0 |
| 57 | Merrill Av. | w/o Vineyard Av. | 77.1 | 78.7 | 80.2 | 3.1 | 1.5 | No | 3.0 |
| 58 | Merrill Av. | e/o Vineyard Av. | 77.2 | 79.1 | 80.8 | 3.6 | 1.7 | No | 3.0 |
| 59 | Limonite | e/o Archibald Av. | 74.4 | 77.9 | 78.2 | 3.8 | 0.3 | No | 3.0 |
| 60 | Limonite | w/o Sumner Av. | 74.8 | 78.2 | 78.4 | 3.6 | 0.2 | Yes | 1.5 |

**Table 5.1-2
Cumulative Mobile-Source Noise Increases**

| ID | Road | Segment | CNEL at Affected Property Line | | | | | Is receptor noise-sensitive? | Threshold |
|----|-----------------|------------------------|--------------------------------|------------------|-----------------|--------------------------|------------------------|------------------------------|-----------|
| | | | Existing | 2040 w/o Project | 2040 w/ Project | Max. Cumulative Increase | Max. Project Increment | | |
| 61 | <i>Limonite</i> | <i>w/o Scholar Wy.</i> | 74.7 | 77.6 | 77.8 | 3.1 | 0.2 | Yes | 1.5 |
| 62 | <i>Limonite</i> | <i>w/o Hamner Av.</i> | 74.8 | 76.9 | 77.2 | 2.4 | 0.3 | Yes | 1.5 |
| 63 | <i>Limonite</i> | <i>e/o Hamner Av.</i> | 75.1 | 78.1 | 78.4 | 3.3 | 0.3 | No | 3.0 |

Source: Merrill Commerce Center Specific Plan, Noise Impact Analysis, City of Ontario (Urban Crossroads, Inc.) July 28, 2020.

As indicated at Table 5.1-2, ambient noise levels along all Study Area roadway segments already exceed 65 dBA CNEL. Along these roadway segments, cumulative noise increases of 1.5 dBA CNEL or more, if received at sensitive land uses, would be considered cumulatively significant. Along roadway segments where ambient conditions exceed 70 dBA CNEL, cumulative noise increases of 3.0 dBA CNEL or more, if received at non-sensitive land uses, would be considered cumulatively significant.

Study Area roadway segments affected by cumulatively significant vehicular-source noise impacts are indicated by *bold italicized text*. As indicated at Table 5.1-2, along all Study Area roadway segments projected to experience cumulatively significant vehicular-source noise impacts, the Project contributions would be less than the 1.5 dBA threshold at sensitive land uses, and less than the 3.0 dBA CNEL threshold at non-sensitive land uses. On this basis, Project contributions to cumulative vehicular-source noise would not be cumulatively considerable and Project impacts would not be cumulatively significant.

5.1.1.6 Hazards/Hazardous Materials - Cumulative Impacts

The cumulative impact area when considering potential hazards and hazardous materials issues includes the area to be developed within the Project site, as well as off-site locations that might be affected by or contribute to hazards or hazardous conditions resulting from the Project and its operations. The cumulative hazards and hazardous materials impact analysis evaluates the effects of Project construction and operations, and reflects long-term buildout conditions within the cumulative impact area.

As discussed at EIR Section 4.6, *Hazards/Hazardous Materials*, the Project does not propose uses or activities that would require substantial handling or use of hazardous materials, hazardous substances, or hazardous waste that could result in potential adverse effects. To the extent that such materials or substances may be present during Project construction or operations they will be transported, stored, used and disposed of consistent with multiple and broad regulatory requirements. The EIR mitigation measures require remediation of any pre-existing hazardous conditions to levels that would be less-than-significant. The mitigation measures also ensure that subsequent development and operation of Project land uses would not create or result in potentially significant hazardous conditions. As mitigated, Project impacts related to hazards and hazardous materials would be less-than-significant.

Other related projects within the cumulative impact area would be required to comply with hazards/hazardous material regulatory requirements. Mitigation would be incorporated if necessary. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on compliance with established policies and regulations, and implementation of the EIR mitigation measures, the Project's potential contribution to hazards/hazardous materials cumulative impacts is not considerable, and the cumulative effects of the Project are less-than-significant.

5.1.1.7 Hydrology/Water Quality - Cumulative Impacts

The cumulative impact area for hydrology/water quality impact considerations is generally defined as the area encompassed by the jurisdictional Regional Water Quality Control Board (RWQCB), in this case the Santa Ana Regional Water Quality Control Board (SARWQCB). Local oversight is also provided by the City of Ontario and San Bernardino County.

Development of the Project site would incrementally increase impervious surfaces within the cumulative impact area, with related potential increases in the rate and quantity of

local storm water discharges. As discussed at EIR Section 4.7, *Hydrology and Water Quality*, the Project's potential hydrology/water quality impacts would be less-than-significant. In this regard, the Project would implement storm water management components, and structural and non-structural Best Management Practices, which collectively act to ensure that post-development storm water discharge rates are adequately conveyed within available system capacities.

The Project drainage concept would maintain the site's primary drainage patterns, and would implement drainage systems and detention areas to accept developed storm water discharges. The Project would implement all necessary drainage and storm water management systems, and would be required to comply with all storm water system design, construction, and operational requirements mandated under the City Municipal Code. The Project drainage and storm water management systems would also be required to comply within regulations established by other jurisdictional agencies including SARWQCB, San Bernardino County, and California Department of Water Resources. Additionally, consistent with established building code regulations, approved site-specific drainage studies reflecting precise pad locations, proposed drainage structures, detention facilities, etc., would be required prior to the issuance of building permits within the Project site.

Storm water management systems implemented by the Project, mandated compliance with City, SARWQCB, County, and State storm water management requirements and policies, collectively ensure that adequate storm water conveyance and treatment facilities would be provided to support development and operations of the Project.

Other related projects within the cumulative impact area would be required to comply stormwater management and water quality regulatory requirements. Mitigation would be incorporated if necessary. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on the preceding, contribution to cumulative hydrology/water quality impacts is not considerable, and the cumulative effects of the Project are determined to be less-than-significant.

5.1.1.8 Biological Resources - Cumulative Impacts

The cumulative impact areas for biological resources are generally defined by available habitat, species' range(s), physical constraints, and other limiting factors as discussed within the Project Biological Resource Assessment, EIR Appendix I. Biological resources occurring, or potentially occurring within the Project site, and associated impacts and mitigation are summarized below.

Special-Status Plant Species

The Project site is extensively disturbed by human activities, and evidences a ruderal non-native plant community dominated by annual grasses. The Project site does not support special-status plant species or habitats. Project impacts to special-status plant species would be less-than-significant.

Special-Status Wildlife Species

The Project could result in potentially significant impacts to the burrowing owl and white-tailed kite. The EIR incorporates mitigation measures that would reduce potential impacts to the burrowing owl and white-tailed kite to levels that would be less-than-significant.

Nesting Birds

Project implementation could affect nesting birds that may be present at the time of Project construction activities. This is a potentially significant impact. The EIR incorporates mitigation measures that would reduce potential impacts to nesting birds to levels that would be less-than-significant.

Jurisdictional Areas

Corps/Regional Board Jurisdiction

Corps/Regional Board Jurisdictional areas that would be potentially affected by implementation of the Project. The resulting loss of surface waters is a potentially significant impact. The EIR incorporates mitigation that would reduce potential impacts to Corps/Regional Board Jurisdictional areas to levels that would be less-than-significant.

CDFW Jurisdiction

Potentially affected CDFW Jurisdictional areas are heavily impacted flood control facilities. Nonetheless, the resulting loss of surface streambeds is considered a potentially significant impact. A CDFW Section 1602 Streambed Alteration Agreement would be required. The EIR incorporates mitigation that would reduce potential impacts to Corps/Regional Board Jurisdictional areas to levels that would be less-than-significant.

Riparian Habitat, Wetlands, or Other Sensitive Natural Community

No riparian habitat, wetlands, or other sensitive natural community exist within the Study Area or would otherwise be adversely affected by the Project. The potential for the Project to have a substantial adverse effect on any riparian habitat, federally protected wetlands, or other sensitive natural community is considered less-than-significant.

Wildlife Movement Corridors

The Project site is bounded by traveled roadways and developed or developing properties. The Project site does not represent a connecting link between significant habitat for wildlife areas. Based on its location within an urban context, the potential for the site to function as a significant wildlife movement corridor is considered low. Project impacts to wildlife movement corridors would be less-than-significant.

Local Policies or Ordinances Protecting Biological Resources; Habitat Conservation Plans

Certain off-site flood control improvements implemented by the Project are located within the boundary of the City of Chino Preserve Resource Management Plan (RMP). Applicable requirements of the RMP have been carried forward as part of the EIR

mitigation measures. As mitigated, potential impacts to the RMP would be less-than-significant. No other local policies or ordinances, or habitat conservation plans are applicable to, or would be potentially adversely affected by the Project.

Other related projects within the cumulative impact area would be required to comply with applicable City, CDFW, and USFWS regulatory requirements addressing biological resources. Mitigation would be incorporated if necessary. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on the preceding discussion, the Project's potential contribution to cumulative impacts regarding biological resources is not considerable, and the cumulative effects of the Project are determined to be less-than-significant.

5.1.1.9 Geology and Soils - Cumulative Impacts

The Project site and all Southern California lie within a seismically active area, generally subject to earthquake hazards, and in this sense, Southern California is considered the cumulative impact area for geology and soils considerations. As discussed at EIR Section 4.9, *Geology and Soils*, Project impacts related to geology and soils would be less-than-significant as mitigated. The Project would not exacerbate any existing adverse geologic/soils conditions.

Other related projects within the cumulative impact area would be required to minimize geology/soils impacts consistent with City and CBC regulatory requirements, thereby minimizing potential cumulative geology/soils impacts. Mitigation would be implemented, if applicable. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on the preceding, the Project's potential contribution to cumulative impacts regarding geology and soils is not considerable, and the cumulative effects of the Project are determined to be less-than-significant.

5.1.1.10 Cultural Resources/Tribal Cultural Resources - Cumulative Impacts

The cumulative impact area for prehistoric, archaeological, and historic resources includes the City of Ontario and surrounding areas of San Bernardino County. As discussed at EIR Section 4.10, 5 (five) buildings or structures within the Project site appear to qualify as contributing elements (Contributors) to the New Model Colony / Chino Valley Dairy Historic District (District) identified within the City of Ontario New Model Colony Area Historic Context Statement. These 5 potential Contributors to the District would be demolished to allow for implementation of the Project. Per CCR Title 14, Section 15126.4(b), the demolition or destruction of a historical resource cannot typically be fully mitigated. Demolition of potential Contributors resulting from the Project is therefore considered a significant and unavoidable impact.

The proposed demolition of potential Contributors within the Project site would contribute considerably to cumulative impacts to historic resources. In this regard, it is reasonable to expect that there will be contemporary or future instances of demolition of similar potential Contributors either through neglect; under circumstances precluding feasible rehabilitation; due to the presence of health and safety hazards requiring removal of a Contributor; or if it is determined that impacts of removing a Contributor is outweighed by the benefits afforded by a new development. There remains potential for current and future demolition of Contributors to occur within the District, which combined with demolition of the potential Contributors within the Project site would result in cumulatively significant impacts to the District. This is particularly relevant when considered in the context of historic districts, which rely on the collective significance of Contributors to be able to convey a given district's historic significance. On this basis, demolition of potential Contributors within the Project site is considered cumulatively significant and unavoidable within the context of the District.

The Project's other potential impacts to cultural resources/tribal cultural resources would be less-than-significant as mitigated.

Other related projects within the cumulative impact area would be required to minimize cultural resources/tribal cultural resources impacts consistent with City and State

regulatory requirements, thereby minimizing potential cumulative cultural resources/tribal cultural resources impacts. Mitigation would be implemented, if applicable.

Based on the preceding, the demolition of potential District Contributors within the Project site is considered to be a cumulatively significant and unavoidable impact. The Project's potential contributions to other cumulative impacts regarding cultural resources/tribal cultural resources would not be considerable, and these cumulative effects would be less-than-significant.

5.1.1.11 Agricultural Resources - Cumulative Impacts

The cumulative impact area when considering potential cumulative agricultural resources impacts includes areas that are currently under City jurisdiction and subject to provisions of The Ontario Policy Plan; surrounding San Bernardino County, and the State of California.

The Ontario Plan EIR concluded that buildout of the City pursuant to the Policy Plan would result in cumulatively significant and unavoidable agricultural resources impacts. As discussed at EIR Section 4.11, *Agricultural Resources*, Project impacts related to agricultural resources would be significant and unavoidable. These Project impacts would contribute considerably to cumulatively significant and unavoidable agricultural resources impacts. Cumulative effects of the Project's significant and unavoidable agricultural resources impacts are consistent with those already considered and addressed in The Ontario Plan EIR.

5.1.1.12 Utilities and Service Systems - Cumulative Impacts

The cumulative impact area when considering potential cumulative utilities and service systems impacts comprises affected purveyor service areas including service sources/supplies, and service conveyance/distribution/treatment facilities.

As discussed at EIR Section 4.12, *Utilities & Service Systems*, the Project would implement all necessary on-site infrastructure improvements and would also construct area-serving

off-site master plan infrastructure improvements. Utilities and service systems distribution and conveyance lines implemented by the Project would be constructed, operated, and maintained pursuant to purveyor requirements and consistent with applicable infrastructure master plans. Infrastructure improvements would be located within existing improved streets or otherwise disturbed properties, thereby limiting or avoiding potential environmental impacts.

This EIR evaluates likely maximum impacts associated with all Project actions and operations, including but not limited to construction and operation of utilities and service systems distribution and conveyance lines. Construction and operation of the Project utilities and service systems distribution and conveyance lines would not result in conditions or environmental impacts not already considered and addressed elsewhere in this EIR.

At properties adjacent to off-site master plan infrastructure improvements implemented by the Project, construction-source noise impacts are recognized as significant and unavoidable (see: EIR Section 4.5, *Noise*). Additionally, conversion of off-site agricultural lands to non-agricultural purposes could result from construction of area-serving master plan infrastructure improvements. These impacts are recognized as significant and unavoidable (see: EIR Section 4.11, *Agricultural Resources*). Mitigation proposed in this EIR under other environmental topics would also address potential impacts associated with construction and operation of utilities and service systems distribution and conveyance lines.

The EIR discussion of potential utilities and services impacts also substantiates the following:

- Water supplies would be available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Details in these regards are presented in the Project Water Supply Assessment (WSA), EIR Appendix M.

- There exists sufficient wastewater treatment capacity to serve the Project's projected demand in addition to the provider's existing commitments;
- Landfills serving the Project have sufficient permitted capacity to accommodate the Project's solid waste disposal needs; and
- The Project would comply with federal, state, and local statutes and regulations related to solid waste.

Other related projects within the cumulative impact area would be required to minimize utilities and services impacts consistent with City, State, and service purveyor requirements, thereby minimizing potential cumulative utilities and services impacts. Mitigation would be implemented, if applicable. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on the preceding, cumulatively significant and unavoidable construction-source noise impacts and cumulatively significant agricultural resources impacts could result from Project construction of master plan area-serving utilities and service systems. These impacts are considered and addressed in detail at EIR Sections 4.5, *Noise* and 4.11, *Agricultural Resources*, respectively.

All other Project contributions to cumulative impacts regarding utilities and service systems would not be considerable, and the cumulative effects of the Project would be less-than-significant.

5.1.1.13 Energy - Cumulative Impacts

The geographic scope of cumulative energy impacts is limited to the energy provider service area(s). The analysis at EIR Section 4.13, *Energy*, substantiates that the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. These plans and policies address development-level and cumulative impacts to energy resources. Project consistency with state and local plans for renewable energy

and energy efficiency demonstrates that the Project energy impacts would not be cumulatively considerable, and the Project cumulative energy impacts would be less-than-significant.

As with the Project, other developments within the energy provider service areas would be required to demonstrate compliance with state and local plans for renewable energy and energy efficiency. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on the preceding, the Project's potential contribution to cumulative impacts regarding energy is not considerable, and the cumulative effects of the Project are determined to be less-than-significant.

5.1.1.14 Population and Housing - Cumulative Impacts

The cumulative impact area for population and housing considerations is the City of Ontario and the encompassing SCAG Region. As discussed at EIR Section 4.14, *Population and Housing*, the Project would not result in potentially significant population and housing impacts. The EIR discussions further substantiate that the Project would be consistent with applicable goals, policies, and strategies addressing cumulative population, housing, and employment growth; and balance of these demographic elements within the City and the SCAG Region.

Other related projects within the cumulative impact area would be required to minimize population and housing impacts consistent with City and State regulatory requirements, thereby minimizing potential cumulative population and housing impacts. Mitigation would be implemented, if applicable. There are no known or probable related projects that would interact with the less-than-significant effects of the Project and thereby result in cumulatively significant impacts.

Based on the preceding discussion, the Project's potential contribution to cumulative impacts regarding population and housing impacts is not considerable, and the cumulative effects of the Project are determined to be less-than-significant.

5.2 ALTERNATIVES ANALYSIS

CEQA Guidelines Section 15126.6 provides that an EIR must describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain the basic Project objectives, but would avoid or substantially lessen any of the significant environmental effects of the proposal. As further presented in the *CEQA Guidelines*, an EIR need not consider every conceivable alternative, but rather, the discussion of alternatives and their relative merits and impacts should be provided in a manner that fosters informed decision-making and public participation. To this end, the *CEQA Guidelines* indicate that the range of alternatives selected for examination in an EIR should be governed by "rule of reason," and requires the EIR to set forth only those alternatives necessary to permit an informed decision.

Consistent with provisions of the *CEQA Guidelines*, the following analysis presents a reasonable range of alternatives to the Project that would potentially lessen its environmental effects while allowing for attainment of the basic Project Objectives. Supporting reasoning behind the selection of alternatives is presented together with a summary description of each alternative. The merits of the selected alternatives compared to the Project are described and evaluated.

The alternatives analysis concludes with identification of the environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, the *CEQA Guidelines* require that one of the remaining considered Alternatives be identified as the environmentally superior selection.

5.2.1 Alternatives Overview

Descriptions of, and the rationale underlying, the alternatives considered in this EIR are presented below. As provided for under CEQA, the ultimate rationale underlying the development and selection of alternatives to the Project is the reduction or avoidance of

otherwise resulting significant environmental impacts, while allowing for attainment of the basic Project Objectives. Alternatives considered in detail include:

- No Project Alternative: No Build;
- No Project Alternative: Development per Existing Policy Plan Land Uses; and
- Reduced Intensity Alternative.

As provided for at *CEQA Guidelines* 15126.6(c), alternatives that were considered by the lead agency but were rejected as infeasible are also identified. These included:

- Alternative Sites;
- “No Threshold Exceedance” Alternative for Significant Transportation Impacts;
- “No Threshold Exceedance” Alternative for Significant Air Quality Impacts;
- “No Threshold Exceedance” Alternative for Significant GHG Impacts;
- “No Threshold Exceedance” Alternative for Significant Noise Impacts;
- Preservation Alternatives for Significant Historical Resources Impacts;
- “No Threshold Exceedance” Alternative for Significant Agricultural Resources Impacts.

The above-listed Alternatives are described in greater detail at Section 5.2.2, *Description of Alternatives* and 5.2.3, *Alternatives Considered and Rejected*. To provide context for the subsequent consideration of Alternatives, significant Project impacts are summarized below, and the Project Objectives are restated.

5.2.1.1 Summary of Significant and Unavoidable Impacts

Significant Transportation Impacts

EIR Section 4.2, *Transportation*, details the Project’s potential transportation impacts. As discussed in that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, the Project would result in certain significant and unavoidable VMT impacts, summarized below.

Vehicle Miles Traveled (VMT) Impacts

The Project VMT Assessment estimates the Project VMT/Service Population (Project VMT/SP) and compares the Project VMT/SP to a calculated City Average Existing VMT/SP. Project VMT/SP that would exceed 85 percent of the City Average Existing VMT/SP would be considered a potentially significant VMT impact. Potentially significant VMT impacts are mitigated through implementation of Transportation Demand Management (TDM) measures. Even with implementation of proposed TDM measures, Project VMT impacts would be individually and cumulatively significant and unavoidable.

Significant Air Quality Impacts

EIR Section 4.3, *Air Quality*, details the Project's potential air quality impacts. As discussed in that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, the Project would result in the following significant and unavoidable air quality impacts:

- Project operational-source VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions would exceed applicable SCAQMD regional thresholds and per AQMD criteria would be significant. Per SCAQMD criteria, Project-level impacts that are significant are also cumulatively considerable. Project operational-source VOC, NO_x, PM₁₀, and PM_{2.5} emissions threshold exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone and PM₁₀/PM_{2.5}) for which the Project region is non-attainment. These are cumulatively significant and unavoidable air quality impacts.
- Because a change in land use is proposed by the Project, it is assumed that air pollutant emissions generated by the Project are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is assumed to conflict with the 2016 AQMP. This is a significant and unavoidable impact. Per SCAQMD criteria, this significant impact at the Project-level would also be cumulatively considerable.

Significant GHG Emissions Impacts

EIR Section 4.4, *Greenhouse Gas Emissions*, details the Project's potential GHG emissions impacts. As discussed in that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, the Project could directly or indirectly generate GHG emissions that may have a significant impact on the environment. Further, the Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions. The Project's potential to contribute considerably (either individually or cumulatively) to global climate change impacts through GHG emissions is therefore considered significant and unavoidable.

Significant Noise Impacts

EIR Section 4.5, *Noise*, details the Project's potential noise impacts. As discussed within that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, noise impacts associated with Project construction of off-site master plan infrastructure improvements would be individually and cumulatively significant and unavoidable for the duration of off-site master plan infrastructure construction activities.

Significant Cultural (Historic) Resources Impacts

As discussed at EIR Section 4.10, *Cultural/Tribal Cultural Resources*, 5 (five) buildings or structures within the Project site appear to qualify as contributing elements (Contributors) to the New Model Colony / Chino Valley Dairy Historic District (District) identified within the City of Ontario New Model Colony Area Historic Context Statement. These 5 (five) potential Contributors to the District would be demolished to allow for implementation of the Project. Per CCR Title 14, Section 15126.4(b), the demolition or destruction of a historical resource cannot typically be fully mitigated. Demolition of potential Contributors resulting from the Project is therefore considered a significant and unavoidable impact.

The proposed demolition of potential Contributors within the Project site would contribute considerably to cumulative impacts to historic resources. In this regard, it is

reasonable to expect that there will be contemporary or future instances of demolition of similar potential Contributors either through neglect; under circumstances precluding feasible rehabilitation; due to the presence of health and safety hazards requiring removal of a Contributor; or if it is determined that impacts of removing a Contributor is outweighed by the benefits afforded by a new development. There remains potential for current and future demolition of Contributors to occur within the District, which combined with demolition of the potential Contributors within the Project site would result in cumulatively significant impacts to the District. This is particularly relevant when considered in the context of historic districts, which rely on the collective significance of Contributors to be able to convey a given district's historic significance. On this basis, demolition of potential Contributors within the Project site is considered cumulatively significant and unavoidable within the context of the District.

Significant Agricultural Resources Impacts

As substantiated at EIR Section 4.11, *Agricultural Resources*, the Project would result in conversion of on-site Farmland to urban uses. Additional conversion of off-site agricultural lands to non-agricultural purposes could also occur as a result of Project construction of master plan infrastructure improvements. These are considered to be individually and cumulatively significant and unavoidable impacts. However, the Project would not cause or result in significant and unavoidable agricultural resources impacts and loss of Farmland impacts beyond those already considered and addressed in the Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan [Policy Plan] Amendment EIR, The Ontario Plan EIR, and the [City of Ontario] Infrastructure Master Plans MND. The Project would not result in new significant and unavoidable agricultural resources impacts and loss of Farmland not otherwise occurring pursuant to the Policy Plan Land Use Plan.

5.2.1.2 Project Objectives

The primary goal of the Project is the development of the subject site with a productive mix of business park and light industrial uses. Complementary Project Objectives include the following:

- Implement a Specific Plan development supporting business park and industrial uses providing a broad range of long-term employment opportunities.
- Implement business park and industrial uses providing a broad range of additional construction employment opportunities.
- Provide safe and convenient access for trucks in a manner that minimizes any potential disruption to residential areas.
- Provide business park and industrial uses near existing roadways and freeways to reduce traffic congestion and air emissions.
- Facilitate goods movement locally, regionally, nationally, and internationally.
- Provide land uses that are compatible with surrounding land uses and that would not conflict with the policies and environmental constraints identified in the Policy Plan.
- Support the Policy Plan vision for urbanization of the Ontario Ranch area of the City.
- Establish new development that would further the City's near-term and long-range fiscal goals.
- Improve the regional jobs/housing balance.

Please refer also to EIR Section 3.5, *Project Objectives*.

5.2.2 Description of Alternatives

Alternatives to the Project considered in this analysis include:

- No Project Alternative: No Build;

- No Project Alternative: Development per Existing Policy Plan Land Uses;
- Alternative Sites;
- “No Threshold Exceedance” Alternative for Significant Transportation Impacts;
- “No Threshold Exceedance” Alternative for Significant Air Quality Impacts;
- “No Threshold Exceedance” Alternative for Significant GHG Impacts;
- “No Threshold Exceedance” Alternative for Significant Noise Impacts;
- Preservation Alternatives for Significant Historical Resources Impacts;
- “No Threshold Exceedance” Alternative for Significant Agricultural Resources Impacts; and
- Reduced Intensity Alternative.

Descriptions of the selected Alternatives are provided below.

5.2.2.1 No Project Alternatives

Overview

The *CEQA Guidelines* require that the EIR include in its evaluation of Alternatives a “No Project” Alternative. Within this analysis, two No Project scenarios are considered – “No Build” and “Development per Existing Policy Plan Land Uses.”

No Project Alternative: No Build

If a No Build scenario were maintained, its comparative environmental impacts would replicate the existing conditions discussions for each of the environmental topics evaluated in this EIR; and comparative impacts of the Project would be as presented under each of the EIR environmental topics. A No Build condition would achieve none of the basic Project Objectives.

No Project Alternative: Development per Existing Policy Plan Land Uses

The No Project Alternative: Development per Existing Policy Plan Land Uses (Existing Policy Plan Land Uses) scenario represents foreseeable development of the subject site pursuant to the site’s current Policy Plan Land Use designations. Table 5.2-1 compares the composition and scope of uses under the Project with development that could result under the Existing Policy Plan Land Uses scenario.

**Table 5.2-1
Site Development Comparison
Project and No Project Alternative: Existing Policy Plan Land Uses**

| Project | No Project Alternative: Existing Policy Plan Land Uses |
|---|---|
| Policy Plan Land Use Designation | Policy Plan Land Use Designation |
| Business Park: 55.1 acres; 1,441,000 building sf | Business Park: 314.7 acres; 8,225,000 building sf |
| N/A | Office Commercial: 43.3 acres; 1,414,600 building sf |
| N/A | General Commercial: 18.3 acres; 318,900 building sf |
| Industrial: 292.8 acres; 7,014,000 building sf | N/A |
| Circulation: 28.4 Acres | N/A |
| Total: 376. 3 Acres; 8,455,000 building sf | Total: 376. 3 Acres; 9,958,500 building sf |

Sources: Policy Plan Land Use Element; Merrill Commerce Center Specific Plan.

Notes:

1. Maximum building square footage calculated by multiplying the total acreage of each land use by the anticipated floor area ratio (FAR) for the respective land use designation. Per Policy Plan Table LU-02 Land Use Designations Summary Table: Industrial FAR = 0.55; Business Park FAR = 0.60; General Commercial FAR = 0.040; Office Commercial FAR = 0.75.

5.2.2.2 Reduced Intensity Alternative

The Reduced Intensity Alternative focuses on a development scenario that would reduce the significant operational-source air quality impacts otherwise occurring under the Project.

Of the total operational-source emissions generated by the Project, approximately 90 percent (by weight) would be generated by Project traffic. An effective way to reduce the Project operational-source emissions would therefore be an Alternative that would reduce the total amount of traffic generated by the Project. Based on the reduction in total traffic, the Reduced Intensity Alternative would also reduce the scope and/or intensity of significant transportation impacts, air quality impacts, and GHG emissions impacts that would result from implementation of the Project.

For purposes of the EIR Alternatives Analysis, the Reduced Intensity Alternative would implement the proposed Merrill Commerce Center Specific Plan uses at an approximately 25 percent reduction in overall development intensity. The mix of land uses proposed by the Project would be proportionally maintained under the Reduced Intensity Alternative. When compared to the approximately 8,455,000 square feet of light industrial/business park uses proposed by the Project, the Reduced Intensity Alternative

would realize approximately 6,341,000 square feet of light industrial/business park development. Development under the Project and the Reduced Intensity Alternative is compared at Table 5.2-2.

**Table 5.2-2
Site Development Comparison
Project and Reduced Intensity Alternative**

| Project | Reduced Intensity Alternative |
|---|---|
| Business Park: 55.1 acres; 1,441,000 building sf | Business Park: 55.1 acres; 1,081,000 building sf |
| Industrial: 292.8 acres; 7,014,000 building sf | Industrial: 292.8 acres; 5,260,000 building sf |
| Circulation: 28.4 Acres | Circulation: 28.4 Acres |
| Total: 376. 3 Acres; 9,958,500 building sf | Total: 376. 3 Acres; 6,341,000 building sf |

Sources: Project Development - Merrill Commerce Center Specific Plan; Reduced Intensity Alternative Development - Applied Planning, Inc.

5.2.3 Alternatives Considered and Rejected

5.2.3.1 Alternative Sites Considered and Rejected

As stated at *CEQA Guidelines* §15126.6 (f)(1)(2)(A), the “key question and first step in [the] analysis [of alternative locations] is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” *CEQA Guidelines* §15126.6 (f) (1) also provides that when considering the feasibility of potential alternative sites, the factors that may be taken into account include: “site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). None of these factors establishes a fixed limit on the scope of reasonable alternatives.”

As discussed below, relocation of the Project would not avoid or substantially lessen the Project’s significant environmental impacts. Further, there are no feasible alternative sites

under control or likely control of the Applicant that would allow for relocation of the Project in a manner that could substantially reduce the Project's significant environmental impacts.

Significant Transportation Impacts Not Substantially Reduced at Alternative Site

- Relocation to an Alternative Site is not likely to achieve any measurable reduction in the Project's VMT impacts. VMT impacts are influenced by the Project location, but are also a product of the Project land uses. Relocation of the Project within the City could shorten certain worker commutes trip lengths; however, others could be lengthened. There is no demonstrable evidence indicating that worker trip lengths would be substantially altered by relocation of the Project. Further, Project truck trip lengths are determined by SCAQMD trip length modeling protocols, and would not be affected by relocation of the Project site. Additionally, there are no feasible alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and associated reassignment of traffic in a manner that could substantially reduce VMT impacts.

Significant Air Quality Impacts Not Substantially Reduced at Alternative Site

- Relocation to an Alternative Site would not likely achieve any measurable reduction in the Project's regional operational-source air quality impacts and contributions to nonattainment conditions. Relocation of the Project anywhere within the South Coast Air Basin would not alter or diminish the significance of this impact.
- The AQMP land use inconsistency resulting from the Project could not be feasibly avoided by relocation of the Project to an alternative site. That is, there are no alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and that would preclude changes in land use designations.

Significant Noise Impacts Not Substantially Reduced at Alternative Site

- Significant noise impacts are assumed to occur at land uses adjacent to alignments of off-site master plan infrastructure to be constructed by the Project. These infrastructure alignments are determined by, and are consistent with, City infrastructure master plans. These master plan infrastructure alignments are beyond the control of the Applicant. Relocation of the Project would not substantially alter master plan infrastructure alignments, or substantially diminish construction-source noise impacts that are assumed to occur at adjacent land uses. Moreover, there are no alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and that would substantially reduce construction-source noise impacts affecting land uses adjacent to infrastructure alignments.

Significant GHG Emissions Impacts Not Substantially Reduced at Alternative Site

- GHG emissions impacts are, by definition, cumulative and global in their effects. Relocation of the Project would not alter or diminish the significance of its GHG emissions impacts.

Significant Impacts to Historical Resources Not Substantially Reduced at Alternative Site

- Consistent with City requirements, the EIR incorporates mitigation that would reduce impacts to the 5 potential contributors to historical resources to the extent feasible. However, buildout of the City as envisioned under The Ontario Plan would ultimately result in urbanization of the area and would not allow for relocation of the Project in manner that would preclude or substantially reduce historical resources impacts otherwise resulting from the Project. In this regard, the Ontario Plan EIR recognizes that implementation of the Proposed General Plan Land Use Plan could threaten historic resources, and recognizes these impacts as significant and unavoidable (General Plan EIR, pp. 5.5-23, 5.5-24). Moreover, there are no alternative sites of under control or likely control of the Applicant that would allow for relocation of the Project and that would substantially reduce potential impacts to historic resources.

Significant Agricultural Resources Impacts Not Substantially Reduced at Alternative Site

- The Project's significant agricultural resources impacts are consistent with the significant agricultural resources impacts anticipated under buildout of the City. In this regard, The Ontario Plan envisions the City buildout condition comprising urban mixed-use, commercial, industrial, and residential land uses. The Ontario Plan vision does not support the continuation of existing agricultural uses. In this latter regard, existing agricultural uses within the City are becoming economically unsustainable and represent land uses that are increasingly incongruous with continuing urbanization of the City. Moreover, there are no alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and that would substantially reduce agricultural resources impacts.

Based on the preceding considerations, analysis of an Alternative Site as means of reducing the Project's significant environmental impacts was not further considered.

5.2.3.2 "No Threshold Exceedance" Alternative for Significant VMT Impacts Considered and Rejected

VMT impacts are defined in terms of miles traveled per service population (VMT/SP). Reduction in VMT impacts could therefore be potentially reduced by diminishing aggregate VMT relative to the service population, or increasing the service population relative to VMT. VMT for the Project are fixed by its location and land use context. As noted previously in these discussions, relocation of the Project would likely not substantially reduce VMT. The Project Service Population is a function of the land uses proposed. Alteration of the Project land uses would be required in order to significantly increase the Service Population while maintaining or decreasing VMT, and thereby improve the VMT/SP ratio and diminish potential VMT impacts. Such land use alterations would result in some undefined development concept other than the Project evaluated in this EIR. Analysis of this other, undefined development would be speculative and would not support the Project Objectives; and is therefore not considered here.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

5.2.3.3 “No Threshold Exceedance” Alternative for Significant Air Quality Impacts Considered and Rejected

In order to reduce Project operational-source air quality emissions to levels that would preclude exceedance of all SCAQMD thresholds, the Project scope would need to be reduced by approximately 90 percent (this would achieve the most restrictive threshold [NO_x] and all subordinate thresholds). At such a reduction in scope the Project Objectives would not be realized in any meaningful sense. As such, potential alternatives with the specific goal of avoiding all significant operational-source air quality impacts resulting from the Project were rejected from consideration, and are not further evaluated in this discussion.

Project operational-source emissions threshold exceedances would result in a cumulatively considerable net increase in criteria pollutants for which the Project region is non-attainment. For the same reasons noted above, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant. However, this impact and all operational-source air quality impacts would be diminished under the EIR Reduced Intensity Alternative.

The Project proposes Policy Plan Land Use amendments that would allow for implementation of the Project uses. Because the Project’s proposed Policy Plan Land Uses designations are not reflected in the AQMP, the Project is considered to be inconsistent with AQMP emissions assumptions and projected AQMP emissions inventory. To maintain AQMP consistency, avoidance of the proposed amendments to the site’s current Policy Plan Land Use designations would be required. This would effectively negate the Project in total. Additionally, there are no alternative locations under control or likely control of the Applicant that would preclude any potential change in land use designations, thereby avoiding potential inconsistencies with the AQMP.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

5.2.3.4 “No Threshold Exceedance” Alternative for GHG Emissions Impacts Considered and Rejected

The Project cannot feasibly achieve no net increase in GHG emissions, nor can the applicable City of Ontario Climate Action Plan (CAP) screening-level threshold (3,000 MTCO₂e/year) be achieved. In this regard, the majority (approximately 70 percent) of the Project GHG emissions would be generated by Project vehicular sources. Responsibility and authority for regulation of vehicular-source emissions resides with the State of California (CARB, et al.). Neither the Applicant nor the Lead Agency can effect or mandate substantial reductions in vehicular-source GHG emissions, much less reductions that would achieve no net increase condition or achieve the CAP screening-level 3,000 MTCO₂e/year threshold. In effect, all Project traffic would need to be eliminated or be “zero GHG emissions sources” in order to achieve the CAP threshold. There are no feasible means to or alternatives to eliminate all Project traffic, or to ensure that Project traffic would zero GHG emissions sources. In terms of its practical application, this would constitute a “no build” condition.

The Project would implement all feasible measures to provide consistency with the current CAP and pending CAP update. The CAP as updated by the City may implement performance standards and GHG emissions reduction targets differing from the current CAP. There is therefore the potential for Project development proposals to conflict with as-yet-unknown performance standards and GHG emissions reduction targets implemented under the pending CAP updates, and thereby result in GHG emissions that would be considered to represent a significant impact on the environment. Moreover, it cannot be assured that the CAP as updated by the City would be determined to be consistent with applicable State and regional plans adopted for the for the purpose of reducing the emissions of greenhouse gases. There are no feasible alternatives that would ensure consistency with the pending CAP update, or to ensure that the CAP update would be consistent with applicable State and regional plans adopted for the purpose of reducing the emissions of greenhouse gases.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

5.2.3.5 “No Threshold Exceedance” Alternative for Significant Construction-Source Noise Impacts Considered and Rejected.

Construction-source noise impacts resulting from construction of off-site master plan infrastructure improvements would be significant and unavoidable. Construction-source noise impacts reflect maximum noise levels generated by likely operations of typical construction equipment. The types and quantities of equipment employed, and associated maximum noise levels generated, would not differ substantially under any reasonable scenario for construction of off-site master plan infrastructure.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

5.2.3.6 Preservation Alternatives for Significant Historical Resources Impacts Considered and Rejected

Consistent with City requirements, this EIR incorporates mitigation that would reduce impacts to historical resources to the extent feasible. However, even with application of mitigation, impacts would be significant and unavoidable. In this regard, the Ontario Plan EIR recognizes that implementation of the Proposed Land Use Plan could threaten historic resources and recognizes these impacts as significant and unavoidable (General Plan EIR, pp. 5.5-23, 5.5-24). Preservation Alternatives that could lessen or avoid impacts to historical resources were also considered, but were ultimately determined to be infeasible and were therefore rejected. These Alternatives and the basis for their rejection are summarized below:

- **In Situ Retention:** In situ of these contributors would be incompatible with, and would conflict with the proposed Specific Plan Land Use Plan, Development Standards, and Design Guidelines and would not allow for implementation of the Project. In situ retention of these contributors is therefore not considered feasible.

- **Retention and Adaptive Reuse:** Similarly, retention and adaptive reuse of these contributors would be incompatible with, and would conflict with the proposed Specific Plan Land Use Plan, Development Standards, and Design Guidelines and would not allow for implementation of the Project. Retention of and adaptive use of these contributors is therefore not considered feasible.
- **Relocation:** Relocation of the contributors may be possible, pending identification of a recipient site that is within the New Model Colony [Ontario Plan] boundaries and that maintains similar setting and location, and historic associations. Additionally, each relocated building should retain original materials and design features that give evidence of original workmanship and feeling/aesthetic such that the resource, upon relocation, maintains the ability to convey its identified significance. There are no designated recipient sites that meet the relocation criteria noted. Moreover, buildout of the City as envisioned under The Ontario Plan would ultimately result in urbanization of the area and would not allow for relocation at a recipient site that maintains similar setting, and location, and historic associations for the affected contributors. Relocation of the contributors is therefore considered infeasible.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

5.2.3.7 “No Threshold Exceedance” Alternative for Significant Agricultural Resources Impacts Considered and Rejected

The Ontario Plan vision does not support the continuation of existing agricultural uses within the City. In this regard, existing agricultural uses within the City are becoming economically unsustainable and represent land uses that are increasingly incongruous with continuing urbanization of the City.

Long-term maintenance of agricultural/farmland uses within the Project site would therefore be contrary to Policy Plan Land Use Plan and the goals of the Ontario Plan. Persisting agricultural/farmland uses within the Project site would likely result in on-

going and increasing land use incompatibilities as surrounding areas continue to urbanize as envisioned under the Policy Plan. Long-term maintenance of agricultural/farmland uses within the Project would therefore potentially exacerbate rather than reduce environmental impacts. Further, transition of the Project site from agricultural/farmland uses and associated significant impacts to agricultural uses are consistent with and have been previously addressed in certified/adopted City environmental documents. The Project would not result in significant agricultural resources impacts not already considered and addressed in these documents.

Moreover, there are no alternative sites under control or likely control of the Applicant that would allow for relocation of the Project and that would substantially reduce agricultural resources impacts. Replacement of agricultural resources at an off-site location would require the Applicant to purchase off-site replacement acreage not designated as Farmland, and improve or restore it to Farmland status. Creation of additional Farmland in the City is contrary to the Policy Plan Land Use Plan policies and vision as summarized previously, and would require comprehensive amendment of the Policy Plan. Neither the City nor Applicant has indicated that such amendment is warranted or desired, and neither has initiated such action.

Additionally, creation of new Farmland-status properties within the City could result in new and additional adverse impacts to the environment associated with typical farm/dairy operations, including but not limited to:

- Animal waste and creation of methane gas, and soil contamination from nitrates and ammonia.
- Use of petroleum products and above ground storage tanks (ASTs) used for fueling, maintaining, and repairing farm equipment.
- Use of formaldehyde, iodine, glycerol, muriatic acid and chlorinated alkaline as cleaning solutions. Application of pesticides to prevent parasite infestations.
- Holding ponds for contaminated runoff from agricultural/dairy farm operations and discharge of wastewater from these processes to pastures or to the area drainage system.

- Accumulating general debris that may have the potential to impact on-site surficial soil.
- Potential presence of septic systems.

These adverse impacts would be amplified at the interface of any agricultural uses imposed within the City's urbanizing context.

Further, creation of new Farmland-status properties outside the City is beyond the Lead Agency and Applicant control. The Farmland status at any site would be assigned through the California Department of Conservation Farmland Mapping and Monitoring Program *Important Farmland Series* mapping protocol. Additionally, creation of new Farmland-status properties at extra-jurisdictional locations could result in adverse impacts noted above. These impacts would be similar to those the City has experienced, and seeks to avoid through implementation of the Policy Plan Land Use Plan.

Based on the preceding, there are no feasible means or alternatives to avoid this impact or reduce the impact to levels that would be less-than-significant.

5.2.4 Comparative Impacts of Alternatives

For each environmental topic addressed in the EIR, the following analyses present an assessment of comparative impacts of Alternatives to the Project. At the conclusion of these discussions, Table 5.2-6 summarizes and compares relative impacts of the Project and the considered Alternatives.

5.2.4.1 Land Use and Planning - Comparative Impacts

In order to implement the Project approval of certain discretionary actions, consultation, and permitting would be required. The Project would comply with associated requirements incorporated therein. Potential land use and planning impacts of the Project would be less-than-significant. See also: EIR Section 4.1, *Land Use and Planning*.

No Project Alternative: No Build

Under this Alternative, existing land use/planning conditions would be maintained (see: EIR Section 4.1, *Land Use and Planning*, 4.1.2, *Setting*). This Alternative would realize no new development and would require no land use or planning discretionary actions or permits. In this respect, land uses and planning impacts would be decreased when compared to the Project. However, this Alternative would not support the City's long-range vision for the subject site, under which the site would be developed with Specific Plan Business Park, Office Commercial, and General Commercial Land Uses. Further, maintenance of the site's current dairy farm and trucking operations uses would become increasingly incompatible with surrounding land uses as the encompassing Ontario Ranch area develops with urban uses pursuant to the Policy Plan. In this latter regard, land use and planning impacts under this Alternative may be increased when compared to the Project.

No Project Alternative: Existing Policy Plan Land Uses

The No Project Alternative: Existing Policy Plan Land Uses scenario assumes development of the subject site consistent with the site's existing Policy Plan Land Use designations. This Alternative would not require amendment of the site's Policy Plan Land Uses as proposed by the Project. Because this Alternative would not require Policy Plan Land Use amendments, the scope of requested/necessary discretionary actions would be incrementally decreased when compared to the Project. Potential land use and planning impacts attributable to Land Use amendments may be reduced when compared to the Project.

Reduced Intensity Alternative

The Reduced Intensity Alternative would require amendment of Policy Plan Land Use designations similar to the Project. Other discretionary actions, consultations, and permitting required under the Reduced Intensity Alternative and the Project would be the same. Under either the Project or the Reduced Intensity Alternative, land use and planning impacts would be less-than-significant.

5.2.4.2 Transportation - Comparative Impacts

Implementation of the Project would result in certain individually and cumulatively significant VMT impacts. All other Project transportation impacts would be less-than-significant or less-than-significant as mitigated. See also: EIR Section 4.2, *Transportation*.

No Project Alternative: No Build

This Alternative would maintain existing VMT conditions (see: EIR Section 4.2, *Transportation, 4.2.2 VMT Assessment, VMT/SP Calculations*). This Alternative would result in decreased total VMT when compared to the Project. Because the intensity and scope of uses is diminished under this Alternative, the Service Population would also be decreased. On this basis, this Alternative may not substantially alter the VMT/SP ratio otherwise resulting from the Project. No VMT impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

When compared to the Project, this Alternative would result in increased trip generation. Table 5.2-3 compares potential trip generation under the No Project Alternative: Existing Policy Plan Land Uses and the Project.

**Table 5.2-3
Trip Generation Comparison-
No Project Alternative: Existing Policy Plan Land Uses vs. Project**

| No Project Alternative: Existing Policy Plan Land Uses | | | Project | |
|--|-------------------------------------|---------------|--|---------------|
| Policy Plan Land Use Designation | ITE Metric | ADT (PCE) | Policy Plan Land Use Designation | ADT (PCE) |
| Business Park: 314.7 acres; 8,225,000 sf | ITE Land Use 130 3.37 Trips/TSF | 27,718 | Business Park: 55.1 acres; 1,441,000 sf | 5,842 |
| Office Commercial: 43.3 acres; 1,414,600 sf | ITE Land Use 710 9.74 Trips/TSF | 13,778 | N/A | --- |
| General Commercial: 18.3 acres; 318,900 sf | ITE Land Use 820 33.37 Trips/TSF | 10,642 | N/A | --- |
| N/A | --- | --- | Industrial: 292.8 acres; 7,014,000 sf | 19,356 |
| N/A | --- | --- | Circulation: 28.4 Acres | --- |
| Total ADT | --- | 52,138 | Total ADT | 25,198 |

Sources: Policy Plan Land Use Element; ITE Trip Generation Manual, 10th Edition (2017); Merrill Commerce Center Specific Plan; Merrill Commerce Center Specific Plan, *Traffic Impact Analysis*, City of Ontario (Urban Crossroads, Inc.) June 30, 2020.

Notes:

**Table 5.2-3
Trip Generation Comparison-
No Project Alternative: Existing Policy Plan Land Uses vs. Project**

| No Project Alternative: Existing Policy Plan Land Uses | | | Project | |
|--|------------|-----------|-------------------------------------|-----------|
| Policy Plan Land Use Designation | ITE Metric | ADT (PCE) | Policy Plan Land Use Designation | ADT (PCE) |

1. Maximum building square footage calculated by multiplying the total acreage of each land use by the anticipated floor area ratio (FAR) for the respective land use designation per Policy Plan Table LU-02 Land Use Designations Summary Table – Industrial FAR = 0.55; Business Park FAR = 0.60; General Commercial FAR = 0.040; Office Commercial FAR = 0.75.
2. No Project Alternative Land Use Trip Generation Metrics from ITE Trip Generation Manual, 10th Edition (2017). ITE Land Use Codes: 130-Industrial Park; 710 General Office, 820 Shopping Center.
3. Project Trip Generation from *Merrill Commerce Center Specific Plan, Traffic Impact Analysis, City of Ontario* (Urban Crossroads, Inc.) June 30, 2020.
4. ADT = Average Daily Trips, TSF = Thousand Square Feet; PCE = Passenger Car Equivalent

This Alternative would result in increased total VMT when compared to the Project. Because the intensity and scope of uses would be increased under this Alternative, the Service Population would also likely be increased. This Alternative would therefore likely not substantially alter the VMT/SP ratio otherwise resulting from the Project. TDM measures implemented under this Alternative would reduce VMT impacts to the extent feasible.

Reduced Intensity Alternative

The Reduced Intensity Alternative would reduce Project trip generation by 25 percent. Project trip generation = 25,198 ADT; the Reduced Intensity Alternative trip generation = 0.75 x 25,198 ADT = 18,899 ADT.

Based on the 25 percent reduction in ADT, the extent of Study Area traffic improvements required under this Alternative would likely be reduced when compared to the Project. Because the Reduced Intensity Alternative would generate less traffic than the Project, fair share fee responsibilities, (which are based on proportional traffic contributions), would be reduced when compared to the Project. Required DIF payments (which are based on development building areas) would also be reduced. It is assumed that like the Project, development of the subject site under the Reduced Intensity Alternative would incorporate those site adjacent and on-site circulation system improvements necessary to avoid or mitigate development-specific traffic impacts.

The Reduced Intensity Alternative would result in reduced total VMT when compared to the Project. Because the intensity and scope of uses would be decreased under the

Reduced Intensity Alternative, the Service Population would also likely be decreased. The Reduced Intensity Alternative would therefore not substantially alter the VMT/SP ratio otherwise resulting from the Project. TDM measures implemented under the Reduced Intensity Alternative would reduce VMT impacts to the extent feasible.

5.2.4.3 Air Quality - Comparative Impacts

Even with application of mitigation, Project operational-source VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions would exceed applicable SCAQMD regional thresholds and per AQMD criteria would be significant. Per SCAQMD criteria, Project-level impacts that are significant are also cumulatively considerable. Project operational-source VOC, NO_x, PM₁₀, and PM_{2.5} emissions threshold exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone and PM₁₀/PM_{2.5}) for which the Project region is non-attainment. These are cumulatively significant and unavoidable air quality impacts.

Because a change in land use is proposed under the Project, it is assumed that the emissions generated by the Project's proposed land uses are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is assumed to conflict with the 2016 AQMP. This is a significant and unavoidable impact. Per SCAQMD criteria, Project-level impacts that are significant are also cumulatively considerable.

All other Project air quality impacts would be less-than-significant, or less-than-significant as mitigated. See also: EIR Section 4.3, *Air Quality*.

No Project Alternative: No Build

Under this Alternative existing air quality conditions would be maintained (see: EIR Section 4.3, *Air Quality*, 4.3.3, *Setting*). This Alternative would realize no new development and would generate no additional air pollutant emissions. This Alternative would result in reduced air quality impacts when compared to the Project. No air quality impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

Under this Alternative, similar construction activities and use of construction equipment would be similar to that occurring under the Project. The maximum daily area of disturbance would be the same under both scenarios.

The increase in vehicular trips under this Alternative would increase operational-source air pollutant emissions. The approximately 100 percent increase in ADT generation under this Alternative would translate to roughly proportional increases in air pollutant emissions. Table 5.2-4 provides a comparison of operational-source air pollutant emissions under the Project and No Project Alternative: Existing Policy Plan Land Uses.

Table 5.2-4
Project and No Project Alternative: Existing Policy Plan Land Uses
Operational-Source Emissions Comparison
(Pounds per Day, Maximum Total Summer/Winter Emissions)

| Pollutant | SCAQMD Threshold | Project | | No Project Alternative: Existing Policy Plan Land Uses | |
|-------------------|------------------|-----------|---------------------|--|---------------------|
| | | Emissions | Threshold Exceeded? | Emissions | Threshold Exceeded? |
| VOC | 55 | 251.34 | YES | 502.68 | YES |
| NO _x | 55 | 870.76 | YES | 1741.52 | YES |
| CO | 550 | 802.48 | YES | 1604.96 | YES |
| SO _x | 150 | 5.29 | No | 10.58 | No |
| PM ₁₀ | 150 | 340.42 | YES | 680.84 | YES |
| PM _{2.5} | 55 | 99.15 | YES | 198.30 | YES |

Sources: Project operational-source emissions estimates from: *Merrill Commerce Center Specific Plan Air Quality Impact Analysis*, City of Ontario (Urban Crossroads, Inc.) January 12, 2020. No Project Alternative: Existing Policy Plan Land Uses operational-source emissions estimates—Applied Planning, Inc.

As indicated in Table 5.2-4, this Alternative would result in increases in all operational-source criteria air pollutant emissions when compared to the Project. Emissions thresholds exceedances occurring under the Project would be amplified under this Alternative. The severity and magnitude of non-attainment impacts otherwise resulting from the Project would also be increased.

Because this Alternative's land uses would conform to land uses reflected in the AQMP, this Alternative would be considered consistent with the AQMP. AQMP inconsistencies otherwise occurring under the Project would be avoided.

The Project DPM-source carcinogenic risk is estimated at 9.34 per million, would not exceed the SCAQMD carcinogenic health risk threshold of 10 per million, and would therefore be less-than-significant. Increased truck traffic generated by this Alternative use could increase DPM-source carcinogenic and noncarcinogenic health risks when compared to the Project. For comparative analysis purposes, it is assumed that the maximum DPM-source carcinogenic and noncarcinogenic health risks under this Alternative would be increased proportional to the approximately 100 percent increase in traffic under this Alternative.

The resulting DPM-source carcinogenic health risk under this Alternative would be: 9.34 per million Project risk $\times 2 = 18.68$ per million. The 18.68 per million carcinogenic health risk under this Alternative would exceed the SCAQMD carcinogenic health risk threshold of 10 per million and would therefore be potentially significant. The resulting noncarcinogenic health risk under this Alternative would be: 0.002 Project Hazard Index (HI) $\times 2 = 0.004$ HI. The 0.004 HI resulting from this Alternative would not exceed the SCAQMD HI threshold of 1.0 and would be less-than-significant.

Other operational-source air quality impacts under this Alternative would be increased when compared to the Project but are assumed to be less-than-significant or less-than-significant as mitigated.

Reduced Intensity Alternative

Construction activities and use of construction equipment would be similar to the Project.

The 25 percent reduction in development intensity under the Reduced Intensity Alternative would translate roughly to a 25 percent reduction in operational-source air pollutant emissions when compared to the Project. Table 5.2-5 compares operational-source air pollutant emissions under the Project and Reduced Intensity Alternative.

Table 5.2-5
Project and Reduced Intensity Alternative
Operational-Source Emissions Comparison
(Pounds per Day, Maximum Total Summer/Winter Emissions)

| Pollutant | SCAQMD Threshold | Project | | Reduced Intensity Alternative | |
|-------------------|------------------|-----------|---------------------|-------------------------------|---------------------|
| | | Emissions | Threshold Exceeded? | Emissions | Threshold Exceeded? |
| VOC | 55 | 251.34 | YES | 188.51 | YES |
| NO _x | 55 | 870.76 | YES | 653.07 | YES |
| CO | 550 | 802.48 | YES | 601.86 | YES |
| SO _x | 150 | 5.29 | No | 3.97 | No |
| PM ₁₀ | 150 | 340.42 | YES | 255.32 | YES |
| PM _{2.5} | 55 | 99.15 | YES | 74.36 | YES |

Sources: Project operational-source emissions estimates from: *Merrill Commerce Center Specific Plan Air Quality Impact Analysis, City of Ontario* (Urban Crossroads, Inc.) January 12, 2020. No Project Alternative operational-source emissions estimates—Applied Planning, Inc.

As indicated at Table 5.2-5, when compared to the Project, operational-source emissions would be incrementally reduced for all pollutants under the Reduced Intensity Alternative. As with the Project, operational-source VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions under the Reduced Intensity Alternative would exceed applicable SCAQMD regional thresholds. As with the Project, the Reduced Intensity Alternative's VOC, NO_x, PM₁₀ and PM_{2.5} regional threshold exceedances would contribute to existing Basin ozone and PM₁₀/PM_{2.5} nonattainment conditions.

The Reduced Intensity Alternative land uses are not reflected in land use plans and regional development assumed in the AQMP. The Reduced Intensity Alternative would therefore be considered inconsistent with the AQMP. AQMP inconsistencies occurring under the Project would persist however the extent of the inconsistency would be diminished.

Decreased truck traffic generated by the Reduced Intensity Alternative uses could decrease DPM-source carcinogenic and noncarcinogenic health risks when compared to the Project. For comparative analysis purposes, it is assumed that the maximum DPM-source carcinogenic and noncarcinogenic health risks under the Reduced Intensity Alternative would be decreased proportional to the approximately 25 percent decrease in traffic under this Alternative. The resulting carcinogenic health risk would be: 9.34 per

million Project risk $\times 0.75 = 7.01$ per million. The 7.01 per million carcinogenic health risk under the Reduced Intensity Alternative would not exceed the SCAQMD carcinogenic health risk threshold of 10 per million and would be less-than-significant. The resulting noncarcinogenic health risk would be: 0.002 Project Hazard Index (HI) $\times 0.75 = 0.0015$ HI. The 0.0015 HI resulting from this Alternative would not exceed the SCAQMD HI threshold of 1.0 and would be less-than-significant.

Other operational-source air quality impacts under the Reduced Intensity Alternative would be reduced when compared to the Project and would be less-than-significant.

5.2.4.4 Greenhouse Gas/Global Climate Change - Comparative Impacts

There is the potential for the Project GHG emissions to conflict with as-yet-unknown performance standards and GHG emissions reduction targets implemented under the anticipated City CAP updates. Moreover, it cannot be assured that the City CAP as updated would be determined to be consistent with applicable State and regional plans adopted for the for the purpose of reducing the emissions of greenhouse gases. On this basis, even after application of mitigation, the Project could directly or indirectly generate GHG emissions that may have a significant impact on the environment. Further, the Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. These are significant and unavoidable impacts. See also: EIR Section 4.4, *Greenhouse Gas Emissions*.

No Project Alternative: No Build

Under this Alternative, existing GHG emissions conditions would be maintained (see: EIR Section 4.4, *Greenhouse Gas Emissions*, 4.4.2.3, *Existing Greenhouse Gases Emissions Inventories*). This Alternative would realize no new development and would generate no additional GHG emissions. This Alternative would result in reduced GHG emissions impacts when compared to the Project. No GHG impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

GHG emissions would be increased under this Alternative – due primarily to the approximately 100 percent increase in vehicle trips and associated increase in mobile-source emissions under this Alternative. As with the Project, there would be the potential for GHG emissions to conflict with performance standards and GHG emissions reduction targets implemented under the anticipated City CAP update. As under the Project scenario, it could not be assured that the City CAP as updated would be determined to be consistent with applicable State and regional plans adopted for the for the purpose of reducing the emissions of greenhouse gases.

On this basis, even after application of mitigation, this Alternative could directly or indirectly generate GHG emissions that may have a significant impact on the environment. Further, this Alternative could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Reduced Intensity Alternative

When compared to the Project, the Reduced Intensity Alternative would result in reduced GHG emissions due to the reduced scope of facilities, reductions in building/facility energy demands, and reduced trip generation. As with the Project, there would be the potential for the Reduced Intensity Alternative GHG emissions to conflict with performance standards and GHG emissions reduction targets implemented under the anticipated City CAP update. As under the Project scenario, it could not be assured that the City CAP as updated would be determined to be consistent with applicable State and regional plans adopted for the for the purpose of reducing the emissions of greenhouse gases.

On this basis, even after application of mitigation, the Reduced Intensity Alternative could directly or indirectly generate GHG emissions that may have a significant impact on the environment. Further, the Reduced Intensity Alternative could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

5.2.4.5 Noise/Vibration - Comparative Impacts

Construction-source noise levels received at land uses adjacent to off-site master plan infrastructure improvements alignments would temporarily exceed applicable noise threshold criteria, and would be considered significant for the duration of infrastructure construction activities. All other noise/vibration impacts generated by or resulting from the Project would be less-than-significant or could be mitigated to levels that are less-than-significant. See also: EIR Section 4.5, *Noise*.

No Project Alternative: No Build

Under this Alternative, existing noise/vibration conditions would be maintained (see EIR Section 4.5, *Noise*, 4.5.2, *Setting*). This Alternative would realize no new development and would generate no additional noise. This Alternative would result in reduced noise impacts when compared to the Project. No noise impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

Under this Alternative, areas affected by construction activities and the types and operations of construction equipment employed would be substantially the same as would occur under the Project. Maximum received construction-source noise/vibration levels would be unchanged.

As with the Project, construction-source noise levels received at land uses adjacent to off-site master plan infrastructure improvement alignments would temporarily exceed applicable noise threshold criteria, and would be considered significant and unavoidable for the duration of infrastructure construction activities. It is anticipated that all other construction-source noise impacts generated by or resulting from this Alternative would be less-than-significant or could be mitigated to levels that are less-than-significant. Under this Alternative and the Project, construction-source noise impacts at land uses adjacent to off-site master plan infrastructure improvement alignments would be comparable.

This Alternative would not generate or result in operational area-source noise/vibration substantially different than would result from uses proposed by the Project. Mitigation would be implemented to reduce noise received from on-site noise sources to levels that would be less-than-significant. This Alternative would not require or implement uses that would be substantial vibration sources. Under this Alternative and the Project, operational area-source noise/vibration impacts would be comparable.

The approximately 100 percent increase in vehicle trips under this Alternative may perceptibly increase vehicular (mobile-source) noise levels along area roadways. Unlike the Project, this Alternative may result in significant vehicular-source noise impacts along area roadways. Vehicular-source noise impacts would be increased under this Alternative.

This Alternative would not be adversely affected by airport/airfield noise. This Alternative would not require uses or programs that would substantially contribute to any existing adverse airport/airfield noise conditions.

Reduced Intensity Alternative

Under the Reduced Intensity Alternative, the types of construction activities and equipment employed would likely be similar to those associated with construction of the Project. Maximum received construction-source noise/vibration levels would be unchanged. As with the Project, construction-source noise levels received at land uses adjacent to off-site master plan infrastructure improvements alignments would temporarily exceed applicable noise threshold criteria, and would be considered significant for the duration of infrastructure construction activities. All other construction-source noise impacts generated by or resulting from the Reduced Intensity Alternative would be less-than-significant or could be mitigated to levels that are less-than-significant. Construction-source vibration impacts generated by or resulting from the Reduced Intensity Alternative would be less-than-significant.

The Reduced Intensity Alternative would not generate or result in operational area-source noise/vibration substantially different than would result from the Project.

Mitigation would be implemented to reduce noise received from on-site noise sources to levels that would be less-than-significant. The Reduced Intensity Alternative would not require or implement uses that would be substantial vibration sources. Under the Reduced Intensity Alternative and the Project, operational area-source noise impacts would be less-than-significant as mitigated. Under the Reduced Intensity Alternative and the Project, operational area-source vibration impacts would be less-than-significant.

The reduction in vehicle trips under the Reduced Intensity Project Alternative may reduce perceived vehicular (mobile-source) noise levels along area roadways. Under the Reduced Intensity Alternative and the Project vehicular-source noise impacts would be less-than-significant.

The Reduced Intensity Alternative would not be adversely affected by airport/airfield noise. The Reduced Intensity Alternative would not require uses or programs that would substantially contribute to any existing adverse airport/airfield noise conditions. Under the Reduced Intensity Alternative and the Project airfield/airport noise impacts would be less-than-significant.

5.2.4.6 Hazards/Hazardous Materials - Comparative Impacts

The Project would not implement uses or programs that would exacerbate any existing adverse hazards/hazardous materials. Under the Project, existing hazards or potentially hazardous conditions affecting the subject site would be remediated and related impacts reduced to levels that would be less-than-significant. The Project would comply with ALUC Conditions of Approval, reducing potential airport/airfield hazards impacts to levels that would be less-than-significant.

No Project Alternative: No Build

Under this Alternative, existing hazards/hazardous materials conditions would be maintained (see: EIR Section 4.6, *Hazards/Hazardous Materials*, 4.6.2, *Setting*). This Alternative would realize no new development and would generate no additional hazards/hazardous materials impacts. Existing adverse hazards/hazardous conditions affecting the subject site and surrounding areas (e.g., contaminated soils, animal waste,

debris, pesticides, contaminated runoff) would persist. This Alternative may therefore result in increased hazards/hazardous conditions impacts when compared to the Project. That is, under the Project, adverse hazards/hazardous conditions affecting the site would be comprehensively remediated as part of the Project development—such remediation would not occur under this Alternative. No hazards/hazardous materials impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

As with the Project, existing hazards or potentially hazardous conditions affecting the subject site would be remediated and related impacts reduced to levels that would be less-than-significant. This Alternative use would not result in hazards and hazardous materials impacts different than those resulting from the Project. This Alternative would not implement uses or programs that would exacerbate any existing adverse hazards/hazardous materials conditions. This Alternative would comply with ALUC Conditions of Approval, reducing potential airport/airfield hazards impacts to levels that would be less-than-significant. Hazards/hazardous materials impacts under this alternative would be similar to the Project.

Reduced Intensity Alternative

As with the Project, existing hazards or potentially hazardous conditions affecting the subject site would be remediated and related impacts reduced to levels that would be less-than-significant. The Reduced Intensity Alternative land uses would be similar to the Project and would not result in hazards and hazardous materials impacts different than those resulting from the Project. The Reduced Intensity Alternative would not implement uses or programs that would exacerbate any existing adverse hazards/hazardous materials conditions. The Reduced Intensity Alternative would comply with ALUC Conditions of Approval, reducing potential airport/airfield hazards impacts to levels that would be less-than-significant. Potential hazards/hazardous materials impacts of the Reduced Intensity Alternative and the Project would be comparable.

5.2.4.7 Hydrology and Water Quality - Comparative Impacts

The Project would implement all necessary storm drain infrastructure improvements. The Project would implement on-site storm water management systems that would connect to storm drains with sufficient capacities. The Project would implement a construction Storm Water Pollution Prevention Plan (SWPPP) and operational Water Quality Management Plan (WQMP) reducing potential water quality impacts to levels that would be less-than-significant.

Further, stormwater management systems implemented under the Project would act to improve area drainage conditions and would remove existing sources of water pollution, thereby improving existing area hydrology and water quality conditions. On this basis, Project impacts to hydrology and water quality would be less-than-significant. See also: EIR Section 4.7, *Hydrology and Water Quality*.

No Project Alternative: No Build

Under this Alternative, existing hydrology/water quality conditions would be maintained (see: EIR Section 4.7, *Hydrology/Water Quality*, 4.7.2, *Existing Conditions*). This Alternative would realize no new development and would generate no additional hydrology and water quality impacts. Existing adverse hydrology/water quality conditions affecting the subject site (e.g., lack of storm sewers, lack of storm water quality treatment systems, degraded water quality due to dairy farming operations) would persist. This Alternative may therefore result in increased hydrology and water quality impacts when compared to the Project. That is, under the Project, adverse hydrology and water quality conditions affecting the site and surrounding areas would be comprehensively addressed through implementation of the Project stormwater management systems. These stormwater management system improvements would not be implemented under this Alternative. No hydrology/water quality impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

This Alternative would implement all necessary storm drain infrastructure improvements. The area subject to development with impervious surfaces under this

Alternative and the Project would be comparable. This Alternative and Project would therefore result in comparable rates and quantities of post-development storm water runoff. This Alternative would be required to implement on-site storm water management systems, reducing impacts to storm drain capacities to levels that would be less-than-significant. This Alternative would be required to comply with applicable SWPPP and WQMP provisions, thereby reducing potential water quality impacts to levels that would be less-than-significant. Stormwater management systems implemented under this Alternative would act to improve existing hydrology and water quality conditions. Potential hydrology and water quality impacts of this Alternative and the Project would be comparable.

Reduced Intensity Alternative

The Reduced Intensity Alternative would implement all necessary storm drain infrastructure improvements. When compared to the Project, the area subject to development with impervious surfaces under the Reduced Intensity Alternative may be reduced. The Reduced Intensity Alternative may therefore result in reduced rates and quantities of post-development storm water runoff. The Reduced Intensity Alternative would be required to implement on-site storm water management systems, reducing impacts to storm drain capacities to levels that would be less-than-significant. The Reduced Intensity Alternative would be required to comply with applicable SWPPP and WQMP provisions, thereby reducing potential water quality impacts to levels that would be less-than-significant. Stormwater management systems implemented under the Reduced Intensity Alternative would act to improve existing hydrology and water quality conditions. Hydrology and water quality impacts of the Reduced Intensity Alternative and the Project would be comparable.

5.2.4.8 Biological Resources - Comparative Impacts

As discussed at EIR Section 4.8, *Biological Resources*, the subject site in total is considered to be of limited biologic value in that it exhibits extensive disturbance due to current and former dairy farming, agricultural, and commercial trucking operations. These uses have substantially degraded the site. The Project site does not contain protected habitat, and does not function as valuable or unique habitat for any vegetation wildlife. It is further

noted that development of the Project site is anticipated under the City Policy Plan, and the Project site would not be preserved for biologic purposes in any case. Mitigation is included in the Project that reduces potential impacts to biological resources to levels that would be less-than-significant.

No Project Alternative: No Build

Under this Alternative, existing biological resources conditions would be maintained (see: EIR Section 4.8, *Biological Resources*, 4.8.2, *Setting*). This Alternative would realize no new development and would have no incremental effects on biological resources. This Alternative would result in reduced biological resources impacts when compared to the Project. No biological resources impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

Development realized under this Alternative would result in disturbance of the subject site similar to that occurring under the Project. Potential impacts to biological resources would also likely be similar to those of the Project.

Reduced Intensity Alternative

The reduction in overall site development realized under the Reduced Intensity Alternative could result in a portion of the site remaining, for the time being, in an undeveloped condition. Realistically, however, potential impacts to biological resources would likely be similar to those of the Project, given the extent of construction activities and subsequent commercial operations that would result from the site's development. Biological resources impacts under this Alternative would be similar to the Project.

5.2.4.9 Geology and Soils - Comparative Impacts

The Project does not propose or require facilities or operations that would result in adverse geology/soils conditions, or exacerbate any existing adverse geology/soils conditions. Compliance with the California Building Code (CBC), the City of Ontario Building Code, measures and recommendations identified in the Project Geotechnical Studies, and the EIR Mitigation Measures would reduce potential geology and soils

impacts of the Project to levels that would be less-than-significant. See also: EIR Section 4.9, *Geology and Soils*.

No Project Alternative: No Build

Under this Alternative, existing geology and soils conditions would be maintained (see: EIR Section 4.9, *Geology and Soils*, 4.9.2, *Setting*). This Alternative would realize no new development and would result in no new or additional geology and soils impacts. This Alternative would result in reduced geology and soils impacts when compared to the Project. No geology and soils impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

This Alternative would implement commercial and light industrial development within the same site developed under the Project. It is assumed that this Alternative would not propose or require facilities or operations that would result in adverse geology/soils conditions, or exacerbate any existing adverse geology/soils conditions. As with the Project, this Alternative would be subject to requirements of the CBC, City of Ontario Building Code, site- and development- specific geotechnical studies, and any necessary mitigation measures. Geology and soils impacts under this Alternative would be similar to the Project.

Reduce Intensity Alternative

The Reduced Intensity Alternative would implement the Project uses at a reduced scale within the same site developed under the Project. It is assumed that the Reduced Intensity Alternative would not propose or require facilities or operations that would result in adverse geology/soils conditions, or exacerbate any existing adverse geology/soils conditions. As with the Project, the Reduced Intensity Alternative would be subject to requirements of the CBC, City of Ontario Building Code, site- and development- specific geotechnical studies, and any necessary mitigation measures. Geology and soils impacts under this Alternative would be similar to the Project.

5.2.4.10 Cultural Resources/Tribal Cultural Resources - Comparative Impacts

As discussed herein, 5 (five) buildings or structures within the Project site appear to qualify as Contributors to the New Model Colony / Chino Valley Dairy Historic District (District). These 5 (five) potential Contributors would be demolished to allow for implementation of the Project. Per CCR Title 14, Section 15126.4(b), the demolition or destruction of a historical resource cannot typically be fully mitigated. Demolition of potential District Contributors resulting from the Project is therefore considered a significant and unavoidable impact.

The proposed demolition of potential District Contributors within the Project site would considerably and cumulatively contribute to impacts to District historic resources. This is a cumulatively significant impact.

The Project otherwise incorporates mitigation that reduces potential impacts to cultural resources/tribal cultural resources to levels that would be less-than-significant. Tribal consultation is in process as required under *AB 52, Gatto. Native Americans: California Environmental Quality Act*. See also Section 4.10, *Cultural Resources/Tribal Cultural Resources*.

No Project Alternative: No Build

Under this Alternative, existing cultural resources/tribal cultural resources conditions would be maintained (see: EIR Section 4.10, *Cultural Resources/Tribal Cultural Resources*, 4.10.2, *Setting*). This Alternative would not result in demolition of potential Contributors to the New Model Colony / Chino Valley Dairy Historic District. This Alternative would realize no new development and would result in no new or additional cultural resources/tribal cultural resources impacts. This Alternative would result in reduced cultural resources/tribal cultural resources impacts when compared to the Project. No cultural resources/tribal cultural resources impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

Site disturbance and potential impacts to cultural resources would be similar to those of the Project. Under this Alternative, as with the Project, demolition of potential Contributors to the New Model Colony / Chino Valley Dairy Historic District would occur. This is an individually and cumulatively significant and unavoidable impact. It is assumed that this Alternative would otherwise incorporate mitigation that would reduce potential impacts to cultural resources/tribal cultural resources to levels that would be less-than-significant. Cultural resources/tribal cultural resources impacts of this Alternative and the Project would be comparable.

Reduced Intensity Alternative

Site disturbance and potential impacts to cultural resources would be similar to those of the Project. Under this Alternative, as with the Project, demolition of potential Contributors to the New Model Colony / Chino Valley Dairy Historic District would occur. This is an individually and cumulatively significant and unavoidable impact. It is assumed that the Reduced Intensity Alternative would otherwise incorporate mitigation that would reduce potential impacts to cultural resources/tribal cultural resources to levels that would be less-than-significant. Cultural resources/tribal cultural resources impacts of the Reduced Intensity Alternative and the Project would be comparable.

5.2.4.11 Agricultural Resources - Comparative Impacts

The Project would result in conversion of on-site Farmland to urban uses. Additional conversion of off-site agricultural lands to non-agricultural purposes could also occur as a result of Project construction of master plan infrastructure improvements. These are considered to be individually and cumulatively significant and unavoidable impacts.

Discretionary actions undertaken as part of the Project would remove the site's current agricultural (AG) overlay and would cancel the existing Williamson Act Contracts on APN 0218-261-35 (Contract #69-147, initiated in 1973); and APNs 1054-151-02, 1054-161-02, 1054-161-03, 1054-201-02 and 1054-351-02 (Contract #70-167, initiated in 1970). With approval of these discretionary actions, the potential for the Project to conflict with agricultural zoning or with a Williamson Act Contract would be less-than-significant.

No Project Alternative: No Build

Under this Alternative, existing agricultural resources conditions would be maintained (see: EIR Section 4.11, *Agricultural Resources*, 4.11.2, *Setting*). This Alternative would realize no new development and would result in no new or additional agricultural resources impacts. This Alternative would result in reduced agricultural resources impacts when compared to the Project. No agricultural resources impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

This Alternative would result in conversion of on-site Farmland to urban uses. Impacts to farmlands and agricultural uses would be consistent with those resulting from the Project.

Reduced Intensity Alternative

The Reduced Intensity Alternative would implement the Project uses at a reduced scale within the Project site. Impacts to farmlands and agricultural uses would be consistent with those resulting from the Project.

5.2.4.12 Utilities & Service Systems - Comparative Impacts

The Project would implement all necessary on-site and off-site utilities and service infrastructure system improvements. At properties adjacent to master plan infrastructure improvements implemented by the Project, construction-source noise impacts are recognized as significant and unavoidable (see: EIR Section 4.5, *Noise*). Additionally, conversion of off-site agricultural lands to non-agricultural purposes could occur as a result of Project construction of area-serving master plan infrastructure improvements. This is recognized as a significant and unavoidable impact (see: EIR Section 4.11, *Agricultural Resources*). Project utilities and service systems impacts would otherwise be less-than-significant. See also: EIR Section 4.12, *Utilities & Service Systems*.

No Project Alternative: No Build

Under this Alternative, existing utilities and service systems conditions would be maintained (see: EIR Section 4.12, *Utilities & Service Systems*, 4.12.2 *Existing Conditions*).

This Alternative would realize no new development and would result in no new or additional utilities and service systems impacts. This Alternative would result in reduced utilities and service systems impacts when compared to the Project. No utilities and service systems impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

This Alternative would result in aggregate development intensities comparable to the Project. It is assumed that this Alternative would implement all necessary on-site and off-site utilities and service infrastructure system improvements. Utilities and service system impacts of this Alternative and the Project would be comparable.

Reduced Intensity Alternative

The Reduced Intensity Alternative would result in development of similar land uses but at a lower intensity than the Project. It is assumed that the Reduced Intensity Alternative would implement all necessary on-site and off-site utilities and service infrastructure system improvements. Utilities and service systems impacts of this Alternative and the Project would be comparable.

5.2.4.13 Energy - Comparative Impacts

Project construction and operations would consume energy. Energy would be provided to the Project by existing sources. The Project would not require new sources of energy or construction of new energy producing facilities. The Project would comply with applicable energy conservation and energy efficiency regulations and policies and would achieve energy conservation and energy efficiencies surpassing regulatory requirements. Project energy consumption would be typical for the uses and scope of development proposed. The Project does not propose or require facilities or operations that would result in wasteful, inefficient or unnecessary consumption. On this basis, the Project would not result in or cause potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources. Neither would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Potential energy impacts of the Project would be therefore be less-than-significant. See also: EIR Section 4.13, *Energy*.

No Project Alternative: No Build

Under this Alternative, existing energy conditions would be maintained (see: EIR Section 4.13, *Energy*, 4.13.2, *Existing Conditions*). This Alternative would realize no new development and would not result in increased energy demands. This Alternative would result in reduced energy impacts when compared to the Project. No energy impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

As with the Project, this Alternative would be provided energy from existing sources. It is assumed that this Alternative would comply with applicable energy conservation and energy efficiency regulations and policies; and that this Alternative would not implement facilities or operations that would result in wasteful, inefficient or unnecessary consumption. When compared to the Project, operational energy consumption would likely be increased due to the increase in trip generation under this Alternative.

Reduced Intensity Alternative

The reduction in development scope under the Reduced Intensity Project Alternative would tend to reduce total energy demands and total energy consumption. As with the Project, the Reduced Intensity Alternative uses would be required to implement energy-efficient facilities, and to otherwise demonstrate effective energy use. Under the Reduced Intensity Alternative, proposed development would also be required to substantiate compliance with state or local plan for renewable energy or energy efficiency. Impacts would be similar to the Project.

5.2.4.14 Population and Housing - Comparative Impacts

As substantiated at EIR Section 4.14, *Population and Housing*, the Project would support and would not conflict with City of Ontario Policy Plan Goals and Policies addressing employment/housing balance. Further, the Project is consistent with, and would support, City of Ontario Policy Plan Housing Element Goals/Policies. The Project would not induce substantial population growth in the area, either directly or indirectly. The Project's potential population and housing would be less-than-significant. See also: EIR Section 4.14, *Population and Housing*.

No Project Alternative: No Build

Under this Alternative, existing population and housing conditions would be maintained. This Alternative would realize no new development and would not result in increased population and housing impacts. This Alternative would result in reduced population and housing impacts when compared to the Project. No population and housing impact mitigation would be implemented under this Alternative.

No Project Alternative: Existing Policy Plan Land Uses

This Alternative would implement development consistent with the site's existing Policy Plan Land Use designations. When compared to the Project, this Alternative would likely result in increased commercial development. As one result, the mix of land uses under this Alternative would generate comparatively greater employment opportunities, tending to increase the jobs attribute of the City's jobs/housing balance. Population and housing impacts of this Alternative and the Project would be comparable. However, because of the potential increased employment opportunities resulting from this Alternative, impacts may tend to skew more to demands for additional housing.

Reduced Intensity Alternative

The reduction in development intensity under the Reduced Intensity Alternative would likely decrease employment opportunities otherwise resulting from the Project, tending to decrease the jobs attribute of the City's jobs/housing balance. Residential uses are not proposed under either the Project or the Reduced Intensity Alternative. Population and housing impacts of this Alternative and the Project would be comparable.

5.2.5 Comparative Attainment of Project Objectives

Comparative Attainment of Project Objectives is summarized for each of the Alternatives considered here. For ease of reference, the Project Objectives are reiterated below.

5.2.5.1 Project Objectives

The primary goal of the Project is the development of the subject site with a productive mix of business park and industrial uses. Complementary Project Objectives include the following:

- Implement a Specific Plan development supporting business park and industrial uses providing a broad range of long-term employment opportunities.
- Implement business park and industrial uses providing a broad range of additional construction employment opportunities.
- Provide safe and convenient access for trucks in a manner that minimizes any potential disruption to residential areas.
- Provide business park and industrial uses near existing roadways and freeways to reduce traffic congestion and air emissions.
- Facilitate goods movement locally, regionally, nationally, and internationally.
- Provide land uses that are compatible with surrounding land uses and that would not conflict with the policies and environmental constraints identified in the Policy Plan.
- Support the Policy Plan vision for urbanization of the Ontario Ranch area of the City.
- Establish new development that would further the City's near-term and long-range fiscal goals.
- Improve the regional jobs/housing balance.

No Project Alternative: No Build

This Alternative would realize none of the stated Project Objectives.

No Project Alternative: Existing Policy Plan Land Uses

This Alternative would likely realize certain of the stated Project Objectives by providing a mix of business park, office commercial, and general commercial uses. However, this Alternative would not implement industrial uses, and in this regard would fail to achieve or would impede attainment the following Project Objectives:

- **Implement a Specific Plan development supporting business park and industrial uses providing a broad range of employment opportunities.**
Elimination of the Project industrial uses as would result from this Alternative would not provide industrial/warehouse employment opportunities that would otherwise result from the Project.
- **Implement business park and industrial uses providing a broad range of additional construction employment opportunities.**
Elimination of the Project industrial uses as would result from this Alternative tend to restrict the range and types of construction employment opportunities that would otherwise result from the Project.
- **Provide business park and industrial uses near existing roadways and freeways to reduce traffic congestion and air emissions; Provide land uses that are compatible with surrounding land uses and that would not conflict with the policies and environmental constraints identified in the Policy Plan.** *No industrial uses would be implemented under this Alternative. Potential reductions in VMT, traffic congestion and vehicular-source emissions achieved by clustering of industrial/warehouse uses with proximate access to existing and proposed roadway and freeways as would occur under the Project would not be realized. Further, this Alternative would result in approximately twice the trip generation resulting from the Project, acting to generally increase traffic congestion, air pollutant emissions, GHG emissions, and vehicular-source noise when compared to the Project. Environmental impacts resulting*

from this Alternative would, more so than the Project, have the potential to conflict with the policies and environmental constraints identified in the Policy Plan.

- **Facilitate goods movement locally, regionally, nationally, and internationally.** *This Alternative would not implement fulfillment warehouse uses, and in this regard would not support or facilitate goods movement as would otherwise occur under the Project.*

Reduced Intensity Alternative

The Reduced Intensity Alternative would implement the proposed Merrill Commerce Center Specific Plan use and development concepts at an approximately 25 percent reduction in overall development intensity. Due to its comparative reduction in scope, the Reduced Intensity Alternative would likely impede or substantially restrict attainment of the following Project Objectives.

- **Implement a Specific Plan development supporting business park and industrial uses providing a broad range of employment opportunities.** *The comparative 25 percent reduction in development intensity under the Reduced Intensity Alternative would diminish the number and diversity of potential employment opportunities otherwise provided by the Project. The noted reduction in scope and would also restrict potential synergy between uses at this location and other vicinity uses.*
- **Implement business park and industrial uses providing a broad range of additional construction employment opportunities.** *The comparative 25 percent reduction in development intensity under the Reduced Intensity Alternative would diminish the number and diversity of potential construction employment opportunities otherwise provided by the Project. The noted reduction in scope and would also restrict potential synergy between uses at this location and other vicinity uses.*

Facilitate goods movement locally, regionally, nationally, and internationally. *The comparative 25 percent reduction in development intensity under*

the Reduced Intensity Alternative would diminish warehousing and fulfillment center capabilities and related goods movement capabilities otherwise occurring under the Project.

Support the Policy Plan vision for urbanization of the Ontario Ranch area of the City. *The comparative 25 percent reduction in development intensity under the Reduced Intensity Alternative would tend to conflict with or impede the Policy Plan vision for urbanization of the Ontario Ranch area of the City. Potential contrary effects would include:*

- *A reduction in business park/industrial development opportunities otherwise available under the Project;*
- *A reduction in the range and variety of business park and industrial developers and tenants that would be attracted to the City;*
- *Diminished potential for development of the site with uses and at an intensity the City considers to be the highest and best use for the subject property;*
- *Diminished fiscal benefits available to the City of Ontario;*
- *Diminished job creation. Related diminished potential for improvement of the regional jobs/housing balance condition.*

5.2.6 Comparison of Alternatives

Table 5.2-6 summarizes, by topic, comparative impacts of the Project and the considered Alternatives.

**Table 5.2-6
Summary of Potential Impacts, Alternatives Compared to Project, By Topic**

| EIR Topic: Project Impacts | No Project Alternative: No Build | No Project Alternative: Existing Policy Plan Land Uses | Reduced Intensity Alternative |
|--|--|--|--|
| Land Use and Planning | | | |
| Impacts would be less-than-significant. | Under this Alternative, existing land use/planning conditions would be maintained. No discretionary actions, permits, or consultations would be required. Impacts in these regards would be reduced when compared to the Project. Maintenance of the site's existing dairy farm/truck operations land uses is incompatible with the Policy Plan vision, and would tend to increase the potential for land use incompatibilities as the surrounding areas continue to urbanize. Potential impacts in these regards would be increased when compared to the Project. | The scope of requested discretionary actions would be reduced. Impacts would be similar to the Project. | Impacts would be similar to the Project. |
| Transportation | | | |
| <p>VMT Impacts Project VMT impacts would be individually and cumulatively significant and unavoidable.</p> <p>Other transportation impacts would be less-than-significant.</p> | <p>VMT Impacts This Alternative would maintain existing VMT conditions. This Alternative would result in decreased total VMT when compared to the Project. Because the intensity and scope of uses is diminished under this Alternative, the Service Population would also be decreased. On this basis, this Alternative may not substantially alter the VMT/SP ratio otherwise resulting from the Project. No VMT impact mitigation would be implemented under this Alternative.</p> | <p>VMT Impacts Total VMT would be increased. VMT/SP impacts would likely be comparable to those of the Project.</p> <p>Other transportation impacts would be similar to those resulting from the Project.</p> | <p>VMT Impacts Total VMT would be diminished. VMT/SP impacts would likely be comparable to those of the Project.</p> <p>Other transportation impacts would be similar to those resulting from the Project.</p> |
| Air Quality | | | |
| <ul style="list-style-type: none"> Project operational-source VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions would exceed applicable SCAQMD regional thresholds and per AQMD criteria would be significant. Per SCAQMD criteria, Project-level impacts that are significant are also cumulatively considerable. Project operational-source VOC, NO_x, PM₁₀, and PM_{2.5} emissions | Under this Alternative existing air quality conditions would be maintained. This Alternative would realize no new development and would generate no additional air pollutant emissions. This Alternative would result in reduced air quality impacts when compared to the Project. No air quality impact mitigation would be implemented under this Alternative. | Operational-source emissions would be increased. Operational-source exceedances of applicable SCAQMD regional thresholds would increase in severity and magnitude. Operational-source VOC, NO _x , PM ₁₀ , and PM _{2.5} emissions contributions to Basin non-attainment conditions would increase in severity and magnitude. | Operational-source emissions would be decreased. Operational-source exceedances of applicable SCAQMD regional thresholds would decrease in severity and magnitude. Operational-source VOC, NO _x , PM ₁₀ , and PM _{2.5} emissions contributions to Basin non-attainment conditions would decrease in severity and magnitude. |

**Table 5.2-6
Summary of Potential Impacts, Alternatives Compared to Project, By Topic**

| EIR Topic: Project Impacts | No Project Alternative: No Build | No Project Alternative: Existing Policy Plan Land Uses | Reduced Intensity Alternative |
|---|--|---|--|
| <p>threshold exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone and PM₁₀/PM_{2.5}) for which the Project region is non-attainment. These are cumulatively significant and unavoidable air quality impacts.</p> <ul style="list-style-type: none"> Because a change in land use designations is proposed under the Project, it is assumed that air pollutant emissions generated by the Project are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is assumed to conflict with the 2016 AQMP. This is a significant and unavoidable impact. Per SCAQMD criteria, this significant impact at the Project-level would also be cumulatively considerable. <p>Other air quality impacts would be less-than-significant.</p> | | <p>Potential AQMP consistency impacts occurring under the Project would be avoided under this Alternative.</p> <p>Other air quality impacts would be similar to those resulting from the Project.</p> | <p>Development of the subject site under the Reduced Intensity Alternative is assumed to conflict with the 2016 AQMP.</p> <p>Other air quality impacts would be similar to those resulting from the Project.</p> |
| Greenhouse Gas Emissions | | | |
| <p>The Project's potential to contribute considerably (either individually or cumulatively) to global climate change impacts through GHG emissions is considered significant and unavoidable.</p> | <p>Under this Alternative, existing GHG emissions conditions would be maintained. This Alternative would realize no new development and would generate no additional GHG emissions. This Alternative would result in reduced GHG emissions impacts when compared to the Project. No GHG impact mitigation would be implemented under this Alternative.</p> | <p>GHG emissions would be increased roughly proportional to increased trip generation under this Alternative. GHG emissions impacts would be comparable to those of the Project.</p> | <p>GHG emissions would be diminished roughly proportional to the diminished scope of development under the Reduced Intensity Alternative. GHG emissions impacts would be comparable to those of the Project.</p> |

**Table 5.2-6
Summary of Potential Impacts, Alternatives Compared to Project, By Topic**

| EIR Topic: Project Impacts | No Project Alternative: No Build | No Project Alternative: Existing Policy Plan Land Uses | Reduced Intensity Alternative |
|--|---|--|---|
| Noise/Vibration | | | |
| <p>Construction-source noise impacts resulting from on-site construction activities would be less-than-significant as mitigated. Construction-source vibration impacts would be less-than-significant.</p> <p>Construction-source noise impacts resulting from construction off-site master plan infrastructure improvements would be significant and unavoidable.</p> <p>Operational area-source noise impacts would be less-than-significant as mitigated. Operational area-source vibration impacts would be less-than-significant.</p> <p>Vehicular-source noise impacts would be less-than-significant.</p> | <p>Under this Alternative, existing noise/vibration conditions would be maintained. This Alternative would realize no new development and would generate no additional noise. This Alternative would result in reduced noise impacts when compared to the Project. No noise impact mitigation would be implemented under this Alternative.</p> | <p>Construction-source noise impacts resulting from on-site construction activities would be similar to those of the Project. Construction-source vibration impacts would be similar to the Project impacts.</p> <p>Construction-source noise impacts resulting from construction of off-site master plan infrastructure improvements would be similar to the Project impacts.</p> <p>Operational area-source noise impacts would be similar to the Project impacts. Operational area-source vibration impacts would be similar to the Project impacts.</p> <p>Vehicular-source noise impacts may be increased when compared to the Project impacts.</p> | <p>Construction-source noise impacts resulting from on-site construction activities would be similar to the Project impacts. Construction-source vibration impacts would be similar to the Project impacts.</p> <p>Construction-source noise impacts resulting from construction of off-site master plan infrastructure improvements would be similar to the Project impacts.</p> <p>Operational area-source noise impacts would be similar to the Project impacts. Operational area-source vibration impacts would be similar to the Project impacts.</p> <p>Vehicular-source noise impacts would be similar to the Project impacts.</p> |
| Hazards/Hazardous Materials | | | |
| <p>Hazards/hazardous materials impacts would be less-than-significant as mitigated.</p> | <p>Under this Alternative, existing hazards/hazardous materials conditions would be maintained. This Alternative would realize no new development and would generate no additional hazards/hazardous materials impacts. Existing adverse hazards/hazardous conditions affecting the subject site and surrounding areas (e.g., contaminated soils, animal waste, debris, pesticides, contaminated runoff) would persist.</p> | <p>Hazards/hazardous materials impacts would be similar to the Project impacts.</p> | <p>Hazards/hazardous materials impacts would be similar to the Project and would be less-than-significant as mitigated.</p> |
| Hydrology/Water Quality | | | |
| <p>Hydrology/water quality impacts would be less-than-significant.</p> | <p>Under this Alternative, existing hydrology/water quality conditions would be maintained. This Alternative would realize no</p> | <p>Hydrology/water quality impacts would be similar to the Project impacts.</p> | <p>Hydrology/water quality impacts would be similar to the Project impacts.</p> |

**Table 5.2-6
Summary of Potential Impacts, Alternatives Compared to Project, By Topic**

| EIR Topic: Project Impacts | No Project Alternative: No Build | No Project Alternative: Existing Policy Plan Land Uses | Reduced Intensity Alternative |
|--|--|--|--|
| | <p>new development and would generate no additional hydrology and water quality impacts. Existing adverse hydrology/water quality conditions affecting the subject site (e.g., lack of storm sewers, lack of storm water quality treatment systems, degraded water quality due to dairy farming operations) would persist. This Alternative may therefore result in increased hydrology and water quality impacts when compared to the Project. That is, under the Project, adverse hydrology and water quality conditions affecting the site and surrounding areas would be comprehensively addressed through implementation of the Project stormwater management systems. These stormwater management system improvements would not be implemented under this Alternative. No hydrology/water quality impact mitigation would be implemented under this Alternative.</p> | | |
| Biological Resources | | | |
| <p>Project biological resources impacts would be less-than-significant as mitigated.</p> | <p>Under this Alternative, existing biological resources conditions would be maintained. This Alternative would realize no new development and would have no incremental effects on biological resources. This Alternative would result in reduced biological resources impacts when compared to the Project. No biological resources impact mitigation would be implemented under this Alternative.</p> | <p>Biological resources impacts would be similar to the Project impacts.</p> | <p>Biological resources impacts would be similar to the Project impacts.</p> |
| Geology and Soils | | | |
| <p>Geology and soils impacts would be less-than-significant as mitigated.</p> | <p>Under this Alternative, existing geology and soils conditions would be maintained. This Alternative would realize no new development and would result in no new or additional geology and soils impacts. This Alternative would result in reduced geology and soils impacts when compared to the Project. No</p> | <p>Geology and soils impacts would be similar to the Project impacts.</p> | <p>Geology and soils impacts would be similar to the Project impacts.</p> |

**Table 5.2-6
Summary of Potential Impacts, Alternatives Compared to Project, By Topic**

| EIR Topic: Project Impacts | No Project Alternative: No Build | No Project Alternative: Existing Policy Plan Land Uses | Reduced Intensity Alternative |
|--|--|---|---|
| | geology and soils impact mitigation would be implemented under this Alternative. | | |
| Cultural Resources/Tribal Cultural Resources | | | |
| <p>Demolition of 5 potential Contributors to New Model Colony / Chino Valley Dairy Historic District is a significant and unavoidable impact.</p> <p>Cultural resources/tribal cultural resources impacts would otherwise be less-than-significant or less-than-significant as mitigated.</p> | <p>Under this Alternative, existing cultural resources/tribal cultural resources conditions would be maintained. This Alternative would realize no new development and would result in no new or additional cultural resources/tribal cultural resources impacts. This Alternative would result in reduced cultural resources/tribal cultural resources impacts when compared to the Project. No cultural resources/tribal cultural resources impact mitigation would be implemented under this Alternative.</p> | <p>Cultural resources/tribal cultural resources impacts would be similar to the Project impacts.</p> | <p>Cultural resources/tribal cultural resources impacts would be similar to the Project impacts.</p> |
| Agricultural Resources | | | |
| <p>Agricultural resources impacts would be significant and unavoidable. These impacts have been previously addressed in the Policy Plan EIR.</p> | <p>Under this Alternative, existing agricultural resources conditions would be maintained. This Alternative would realize no new development and would result in no new or additional agricultural resources impacts. This Alternative would result in reduced agricultural resources impacts when compared to the Project. No agricultural resources impact mitigation would be implemented under this Alternative.</p> | <p>Agricultural resources impacts would be similar to the Project impacts.</p> | <p>Agricultural resources impacts would be similar to the Project impacts.</p> |
| Utilities & Service Systems | | | |
| <p>At properties adjacent to master plan infrastructure improvements implemented by the Project, construction-source noise impacts are recognized as significant and unavoidable (see: EIR Section 4.5, <i>Noise</i>). Additionally, conversion of off-site agricultural lands to non-agricultural purposes could result from Project construction of master plan infrastructure improvements. These impacts are recognized as significant and unavoidable</p> | <p>Under this Alternative, existing utilities and service systems conditions would be maintained. This Alternative would realize no new development and would result in no new or additional utilities and service systems impacts. This Alternative would result in reduced utilities and service systems impacts when compared to the Project. No utilities and service systems impact mitigation would be implemented under this Alternative.</p> | <p>Off-site construction-source noise and agricultural resources impacts would be similar to the Project impacts.</p> | <p>Off-site construction-source noise and agricultural resources impacts would be similar to the Project impacts.</p> |

**Table 5.2-6
Summary of Potential Impacts, Alternatives Compared to Project, By Topic**

| EIR Topic: Project Impacts | No Project Alternative: No Build | No Project Alternative: Existing Policy Plan Land Uses | Reduced Intensity Alternative |
|---|--|--|---|
| (see: EIR Section 4.11, <i>Agricultural Resources</i>). Mitigation proposed in this EIR under other environmental topics would also address potential impacts associated with construction and operation of utilities and service systems. Other impacts associated with or resulting from construction of Project infrastructure improvements would be less-than-significant or less-than-significant as mitigated. | | | |
| Energy | | | |
| Energy impacts would be less-than-significant. | Under this Alternative, existing energy conditions would be maintained. This Alternative would realize no new development and would not result in increased energy demands. This Alternative would result in reduced energy impacts when compared to the Project. No energy impact mitigation would be implemented under this Alternative. | Facility energy impacts would be similar to the Project impacts. Increased trip generation may translate to increased vehicular-source energy demands. | Total energy demands and energy consumption impacts would likely be reduced when compared to the Project. |
| Population/Housing | | | |
| Population/housing impacts would be less-than-significant. | | Population/housing impacts would be similar to the Project impacts. | Population/housing impacts would be similar to the Project impacts. |
| Relative Attainment of Project Objectives: All Project Objectives would be attained. | Existing site conditions would be maintained. None of the Project land uses or development concepts would be implemented. None of the Project Objectives would be realized. | This Alternative would not implement industrial uses, and in this regard would fail to achieve or would impede attainment the following Project Objectives: <ul style="list-style-type: none"> • Implement a Specific Plan development supporting business park and industrial uses providing a broad range of long-term employment opportunities. • Implement business park and industrial uses providing a broad range additional construction employment opportunities. | The Reduced Intensity Alternative would implement the proposed Merrill Commerce Center Specific Plan uses and development concepts at an approximately 25 percent reduction in overall development intensity. Due to its comparative reduction in scope, the Reduced Intensity Alternative would impede or substantially restrict attainment of the following Project Objectives. <ul style="list-style-type: none"> • Implement a Specific Plan development supporting business park and industrial uses providing a broad range of employment opportunities. |

**Table 5.2-6
Summary of Potential Impacts, Alternatives Compared to Project, By Topic**

| EIR Topic: Project Impacts | No Project Alternative: No Build | No Project Alternative: Existing Policy Plan Land Uses | Reduced Intensity Alternative |
|----------------------------|----------------------------------|---|--|
| | | <ul style="list-style-type: none"> • Provide business park and industrial uses near existing roadways and freeways to reduce traffic congestion and air emissions. • Provide land uses that are compatible with surrounding land uses and that would not conflict with the policies and environmental constraints identified in the Policy Plan. • Facilitate goods movement locally, regionally, nationally, and internationally. | <ul style="list-style-type: none"> • Implement business park and industrial uses providing a broad range additional construction employment opportunities. • Facilitate goods movement locally, regionally, nationally, and internationally. • Support the Policy Plan vision for urbanization of the Ontario Ranch area of the City. |

5.2.7 Environmentally Superior Alternative

No Project Alternative: No Build Eliminated from Consideration

As indicated at Table 5.2-6, the No Project Alternative: No Build would achieve none of the Project Objectives, and under certain topics, may increase the severity of, or create additional impacts not otherwise occurring under the Project. This Alternative is therefore eliminated from consideration as the “Environmentally Superior Alternative.”

No Project Alternative: Existing Policy Plan Land Uses Eliminated from Consideration

As indicated at Table 5.2-6, the No Project Alternative: Existing Policy Plan Land Uses would provide no reduction in significant environmental impacts when compared to the Project, and may increase the severity of, or create additional impacts not otherwise occurring under the Project. This Alternative is therefore eliminated from consideration as the “Environmentally Superior Alternative.”

Reduced Intensity Alternative Considerations

As also indicated at Table 5.2-6, the Reduced Intensity Alternative would incrementally reduce the Project’s environmental impacts. While providing relief from certain environmental impacts otherwise occurring under the Project. The Reduced Intensity Alternative would however substantially restrict attainment of the Project Objectives, as summarized below:

Reduced Intensity Alternative Would Reduce but Would not Eliminate Significant Impacts

The Reduced Intensity Alternative would reduce, but not eliminate the Project’s significant impacts regarding transportation, air quality, GHG emissions, noise, and agricultural resources. More specifically:

- Total VMT would be reduced. However, VMT/SP ratios would be similar to the Project and related VMT impacts would be significant and unavoidable.

- The magnitude of operational-source air quality impacts (VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions impacts) would be diminished but would remain significant and unavoidable.
- Construction-source noise impacts affecting off-site properties along master plan infrastructure improvements corridors would be similar to the Project and would remain significant and unavoidable.
- GHG emissions impacts would be similar to the Project and would remain significant and unavoidable.
- Demolition of historic District Contributors would be required. Impacts to historic resources would be similar to the Project and would remain significant and unavoidable.
- On-site and potential off-site agricultural resources impacts would be similar to the Project and would remain significant and unavoidable.

Reduced Intensity Alternative Would Marginalize Attainment of Project Objectives

Based on the reduction in overall development scope, the Reduced Intensity Alternative would broadly restrict attainment of all Project Objectives. Where quantifiable (e.g., additional sales tax revenues, job creation, incremental property tax revenues), this reduction in attainment of Objectives would be approximately 25 percent less than would be otherwise realized under the Project. Qualitatively, development of the subject site under the Reduced Intensity Alternative fails to optimize use of a significant vacant property, and is not considered by the Lead Agency to represent the highest and best use of the subject site.

Summary and Conclusions

Reduced Intensity Alternative Identified as the Environmentally Superior Alternative

In conclusion, the Reduced Intensity Alternative would result in potential incremental reduction in certain significant environmental impacts otherwise occurring under the Project, but would not eliminate these impacts. The Reduced Intensity Alternative would allow for limited attainment of the Project Objectives. On this basis, the Reduced Intensity Alternative is identified as the environmentally superior alternative.

Other Considerations

Countering its potential environmental benefits, the Reduced Intensity Alternative would broadly and substantially diminish attainment of the Project Objectives, with related diminishment of socio-economic benefits to the City and region. CEQA indicates that socioeconomic effects (while not lone determinants) are important considerations for decision-makers in evaluating and considering EIR Alternatives. With respect to socioeconomic effects, the Project and the Reduced Intensity Alternative would each have beneficial effects for the area. Either of these scenarios would contribute to area employment and the City's overall tax base. However, as noted previously, because the scope and variety of land uses would be reduced by approximately 25 percent under the Reduced Intensity Alternative, the resulting effective realization of the Project Objectives, to include economic benefits to the City and region, would likely be similarly diminished.

Additionally, at an approximate 25 percent reduction in the Project's development scope, the Reduced Intensity Alternative would not recognize the site's value as one of the remaining undeveloped properties within the City; or take advantage of the site's available acreage and consequently would not result in development of the subject site in a manner considered to be its highest and best use.

5.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTION

5.3.1 Overview

CEQA Guidelines Section 15126.2 (e) *Growth-Inducing Impact of the Proposed Project* requires that an EIR:

“Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a recycled water plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”

Potential growth-inducing aspects and elements of the Project are discussed below and would include:

- Master plan infrastructure improvements;
- Job creation; and
- Economic stimulus/other.

5.3.2 Master Plan Infrastructure Improvements

The Project would implement infrastructure improvements that are consistent with the City and purveyor master plans. Please refer to the discussion of Project improvements presented at EIR Section 3.0, *Project Description*, 3.4.3.4 *Access and Circulation*, and 3.4.3.5 *Utilities Infrastructure*; and EIR Section 4.12, *Utilities and Services*. Infrastructure

improvements implemented by the Project would not only support the Project uses, but would also extend to and expand infrastructure available to off-site undeveloped portions of the City. The Project infrastructure improvements would be considered growth-inducing in that these improvements would facilitate development of currently undeveloped areas of the City. More specifically, Project infrastructure improvements would likely allow for and encourage development of the Ontario Ranch area of the City.

Ultimate development of off-site areas served by the Project infrastructure improvements would be governed by the Ontario Policy Plan. Environmental impacts of growth that would result from buildout of the City pursuant to the Policy Plan have been previously evaluated and addressed in the Policy Plan EIR. Growth that may result from or be facilitated by the Project infrastructure improvements would not result in impacts not previously considered and addressed in the Policy Plan EIR. Further, future projects that are the result of, or facilitated by, the Project infrastructure would still be subject to project level CEQA review and mitigation.

This EIR evaluates likely maximum impacts associated with all Project actions and operations, including but not limited to construction and operation of utilities and service systems distribution and conveyance lines. Construction and operation of the Project utilities and service systems distribution and conveyance lines described in this EIR would not result in conditions or environmental impacts not already considered and addressed elsewhere in this EIR. Mitigation proposed in this EIR under other environmental topics would also address potential impacts associated with construction and operation of utilities and service systems distribution and conveyance lines. There are no unique or atypical conditions or aspects of the Project utilities and service systems distribution and conveyance lines that would result in significant environmental impacts not otherwise addressed in this EIR.

Policy Plan Policy LU4-3 *Infrastructure Timing* requires that necessary infrastructure and services be in place prior to or concurrent with new development. Similarly, the Merrill Commerce Center Specific Plan includes a development phasing plan and infrastructure phasing plan that require infrastructure supporting buildout of the Specific Plan be

adequately phased concurrent with development (see: Specific Plan, p. A-6). New development that may be facilitated by availability of infrastructure constructed by the Project would therefore not result in adverse impacts to infrastructure systems themselves, or to customers served by those infrastructure systems.

5.3.3 Job Creation

In general terms, job creation furthers growth via wages, salaries, and general fiscal benefits; increased demands for housing; and increased demands for consumer goods and services. As summarized at Table 5.3-1, below, the Project would create an estimated 8,638 new jobs, and does not include the development of any housing. As indicated at Table 5.3-1, Project job creation would not exceed the Policy Plan employment forecasts for the subject site. Project employment and any associated growth are therefore reflected in the Policy Plan and impacts of such growth are considered and addressed in the Policy Plan EIR. Project job creation and associated growth would not result in impacts not already considered and addressed in the Policy Plan EIR.

**Table 5.3-1
Employment Comparison
Existing Policy Plan Land Uses vs. Project Land Uses**

| Land Use/Area | FAR/Maximum Bldg. Area (TSF) | Job Mixture | Employment Factor (Jobs/1000 SF) | Employment |
|---------------------------------------|------------------------------|------------------|----------------------------------|---------------|
| Existing Policy Plan Land Uses | | | | |
| Business Park/ 314.7 Acres | 0.60 FAR/ 8,225,000 sf | Non-Office (50%) | 0.650 | 2,673 |
| | | Office (50%) | 2.860 | 11,762 |
| Office Commercial 43.3 acres | 0.75 FAR/ 1,415 TSF | Non-Office (30%) | 0.718 | 305 |
| | | Office (70%) | 2.860 | 2,833 |
| General Commercial/ 18.3 acres | 0.40 FAR/ 319 TSF | Non-Office (90%) | 0.718 | 206 |
| | | Office (10%) | 2.860 | 91 |
| Total Employment | | | | 17,870 |
| Project Land Uses | | | | |
| Business Park:/ 55.1 acres | 0.60 FAR/ 1,441 TSF | Non-Office (50%) | 0.650 | 468 |
| | | Office (50%) | 2.860 | 2,061 |
| Industrial/ 292.8 acres | 0.55 FAR/ 7,014 TSF | Non-Office (90%) | 0.650 | 4,103 |
| | | Office (10%) | 2.860 | 2,006 |
| Right-of-way-Other/ --- | --- | --- | --- | --- |

**Table 5.3-1
Employment Comparison
Existing Policy Plan Land Uses vs. Project Land Uses**

| Land Use/Area | FAR/Maximum Bldg. Area (TSF) | Job Mixture | Employment Factor (Jobs/1000 SF) | Employment |
|-------------------------|------------------------------|-------------|----------------------------------|--------------|
| 28.4 Acres | | | | |
| Total Employment | | | | 8,638 |

Sources: Land Use Floor Area Ratio (FAR) development intensities from: The Ontario Plan Table LU-02 *Land Use Designations Summary* (City of Ontario) Amended March 2017. Job Mixture and Employment Factors from The Ontario Plan, *Buildout Methodology* (City of Ontario) Revised April 2015.

Economic Stimulus/Other

Construction and operation of the Project would act generally as economic stimulus for the City and region. As noted above, Project job creation would provide local and regional fiscal benefits and would contribute generally to increased demands for housing, goods, and services. Salaries and wages paid to employees, taxes, and other revenue streams generated by the Project would provide incentive for creation of second tier businesses with accompanying economic stimulus, which in turn would create third tier businesses, with accompanying economic stimulus, etc.

Economic stimulus and related growth resulting from the Project would create additional demands for City services. As noted previously, growth resulting from the Project is comprehensively reflected in the Policy Plan, and environmental impacts of this growth, including demands on City services are considered and addressed in the Policy Plan EIR. Growth due to Project economic stimulus factors would not result in impacts not already considered and addressed in the Policy Plan EIR.

Moreover, the Project Economic/Fiscal Impact Analysis substantiates that the Project would be self-supporting in terms of its fiscal impacts on City services, and would not result in undue or unaddressed demands for services. Further, as noted above, the Project would comply with Policy Plan Policy LU4-3 *Infrastructure Timing*. Policy LU4-3 requires that necessary infrastructure and services be in place prior to or concurrent with new development. Similarly, the Merrill Commerce Center Specific Plan includes a development phasing plan and infrastructure phasing plan that require infrastructure supporting buildout of the Specific Plan be adequately phased concurrently with

development (see: Specific Plan, p. A-6). New development that may be facilitated by availability of infrastructure constructed by the Project would therefore not result in adverse impacts to infrastructure systems themselves or to customers served by those infrastructure systems.

The Project would not otherwise encourage or facilitate known or probable activities that could significantly and adversely affect the environment, either individually or cumulatively. To the satisfaction of the City, as-yet unknown activities or developments that may derive from the Project would be independently required to evaluate and address their potential environmental impacts.

Summary

The Project would induce growth through the construction of master plan infrastructure improvements, job creation, and economic stimulus. Project master plan improvements would not of themselves result in impacts not considered and addressed within the EIR body text. Growth resulting from or facilitated by Project master plan infrastructure improvements is anticipated under the Policy Plan, and environmental impacts attributable to such growth is considered and addressed in the Policy Plan EIR.

Project job creation would not exceed employment projections developed under the Policy Plan. Accordingly, the growth resulting from Project job creation is anticipated under the Policy Plan, and as a result, such growth would not result in environmental impacts not already considered and addressed in the Policy Plan EIR.

The Project would provide economic stimulus that would directly and indirectly contribute to growth. However, growth due to Project economic stimulus factors would not result in impacts not already considered and addressed in the Policy Plan EIR.

The Project would not otherwise encourage and facilitate known or probable activities that could significantly affect the environment, either individually or cumulatively. To the satisfaction of the City, as-yet unknown activities or developments that may derive

from the Project would be independently required to evaluate and address their potential environmental impacts.

5.4 SIGNIFICANT ENVIRONMENTAL EFFECTS

An EIR must identify any significant environmental effects that would result from the Project. (Pub. Resources Code, §21100, subd. (b)(2)(B).) Significant environmental effects of the Project are summarized below.

5.4.1 Significant Transportation Impacts

EIR Section 4.2, *Transportation*, details the Project's potential transportation impacts. As discussed in that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, the Project would result in certain significant and unavoidable transportation impacts, summarized below.

Vehicle Miles Traveled (VMT) Impacts

The Project VMT Assessment estimates the Project VMT/Service Population (Project VMT/SP) and compares the Project VMT/SP to a calculated City Average Existing VMT/SP. Project VMT/SP that would exceed 85 percent of the City Average Existing VMT/SP would be considered a potentially significant VMT impact. Potentially significant VMT impacts are mitigated through implementation of Transportation Demand Management (TDM) measures. Even with implementation of proposed TDM measures, Project VMT impacts would be individually and cumulatively significant and unavoidable.

5.4.2 Significant Air Quality Impacts

EIR Section 4.3, *Air Quality*, details the Project's potential air quality impacts. As discussed in that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, the Project would result in the following significant and unavoidable air quality impacts:

- Project operational-source VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions would exceed applicable SCAQMD regional thresholds and per AQMD criteria would be

significant. Per SCAQMD criteria, Project-level impacts that are significant are also cumulatively considerable. Project operational-source VOC, NO_x, PM₁₀, and PM_{2.5} emissions threshold exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone and PM₁₀/PM_{2.5}) for which the Project region is non-attainment. These are cumulatively significant and unavoidable air quality impacts.

- Because a change in land use is proposed by the Project, it is assumed that air pollutant emissions generated by the Project are not reflected in the 2016 AQMP air quality standards, interim emissions reductions targets, and emissions inventories. Consequently, development of the subject site as proposed by the Project is assumed to conflict with the 2016 AQMP. This is a significant and unavoidable impact. Per SCAQMD criteria, this significant impact at the Project-level would also be cumulatively considerable.

5.4.3 Significant GHG Emissions Impacts

EIR Section 4.4, *Greenhouse Gas Emissions*, details the Project's potential GHG emissions impacts. As discussed in that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, the Project could directly or indirectly generate GHG emissions that may have a significant impact on the environment. Further, the Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions. The Project's potential to contribute considerably (either individually or cumulatively) to global climate change impacts through GHG emissions is therefore considered significant and unavoidable.

5.4.4 Significant Noise Impacts

EIR Section 4.5, *Noise*, details the Project's potential noise impacts. As discussed within that Section, even after compliance with applicable regulations and requirements, and application of mitigation measures, noise impacts associated with Project construction of off-site master plan infrastructure improvements would be individually and cumulatively significant and unavoidable for the duration of off-site master plan infrastructure construction activities.

5.4.5 Significant Cultural (Historic) Resources Impacts

EIR Section 4.10, *Cultural Resources/tribal Cultural Resources*, details the Project's potential cultural resources impacts. As discussed within that Section, demolition of historic District Contributors within the Project site is required to allow for implementation of the Project. Even after compliance with applicable regulations and requirements, and application of mitigation measures, these impacts would be significant and unavoidable.

5.4.6 Significant Agricultural Resources Impacts

As substantiated at EIR Section 4.11, *Agricultural Resources*, the Project would result in conversion of on-site Farmland to urban uses. Additional conversion of off-site agricultural lands to non-agricultural purposes could also occur as a result of Project construction of master plan infrastructure improvements. These are considered to be individually and cumulatively significant and unavoidable impacts. However, the Project would not cause or result in significant and unavoidable agricultural resources impacts and loss of Farmland impacts beyond those already considered and addressed in the Ontario Sphere of Influence (New Model Colony [Ontario Ranch]) General Plan [Policy Plan] Amendment EIR, The Ontario Plan EIR, and the [City of Ontario] Infrastructure Master Plans MND. The Project would not result in new significant and unavoidable agricultural resources impacts and loss of Farmland not otherwise occurring pursuant to the Policy Plan Land Use Plan.

5.5 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The *CEQA Guidelines* §§ 15126, subd. (c), 15126.2, subd. (c), 15127, require that for certain types or categories of projects, an EIR must address significant irreversible environmental changes that would occur should the Project be implemented. As presented at *CEQA Guidelines* §15127, the topic of Significant Irreversible Environmental Changes need be addressed in EIRs prepared in connection with any of the following activities:

- (a) The adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency;

(b) The adoption by a local agency formation commission of a resolution making determinations; or

(c) A project which will be subject to the requirements for preparing of an environmental impact statement pursuant to the requirements of the National Environmental Policy Act of 1969, 42 U.S.C. 4321-4347.

The Project qualifies under *Guidelines* §15127 (a) in that City of Ontario Policy Plan (Land Use Element) amendment(s) are required in order to implement the Project. As such, this EIR analysis addresses significant irreversible environmental changes which could be involved in the proposed action should it be implemented [*Guidelines*, Sections 15126(e) and 15127]. An impact would fall into this category if:

- A project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses;
- A project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project results in wasteful use of energy).

With regard to the above considerations, various natural resources, in the form of construction materials and energy resources, would be used in the construction of the Project, but their use is not expected to result in shortfalls in the availability of these resources. Development of the site with the Project uses will commit the property to such uses for the foreseeable future, and thereby limit the site's prospective alternative uses. Notwithstanding, given the current Specific Plan Zoning Designation for the site; the even greater development intensities envisioned for the subject site under the current Policy Plan Land Use designations; and the urbanization of surrounding properties, commitment of the site to uses proposed by the Project is considered appropriate.

The Project presents no significant possibility of irreversible environmental damage “from any potential environmental incidents associated with the project.” That is, the Project does not propose facilities or uses that would result in potentially significant environmental incidents. Moreover, all feasible mitigation is incorporated in the Project to reduce its potential environmental effects. As discussed herein, the Project would not result in or cause unwarranted or wasteful use of resources, including energy.

6.0 ACRONYMS AND ABBREVIATIONS

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| | |
|----------|--|
| ACMs | Asbestos Containing Materials |
| ADT | Average Daily Traffic |
| APN | Assessor's Parcel Number |
| AQMD | Air Quality Management District |
| AQMP | Air Quality Management Plan |
| ARB | California Air Resources Board |
| AVO | Average Vehicle Occupancy |
| BAT | best available technology |
| BCT | best conventional pollutant control technology |
| BMP | Best Management Practice |
| BOE | Board of Equalization |
| CAA | Clean Air Act |
| CAAQS | California Ambient Air Quality Standards |
| CalARP | California Accidental Release Prevention Program |
| CalEPA | California Environmental Protection Agency |
| CALINE4 | California Line Source Dispersion Model |
| Cal/OSHA | California Department of Industrial Relations, Division of Occupational Safety and Health Administration |
| Caltrans | California Department of Transportation |
| CARB | California Air Resources Board |
| CAT | Climate Action Team |
| CBC | California Building Code |
| CCAA | California Clean Air Act |
| CCAR | California Climate Action Registry |
| CCR | California Code of Regulations |
| CC&Rs | Covenants, Conditions and Restrictions |

| | |
|-----------------|---|
| CDFW | California Department of Fish and Wildlife |
| CEC | California Energy Commission |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CESA | California Endangered Species Act |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| cfs | cubic feet per second |
| CH ₄ | Methane |
| CIWMB | California Integrated Waste Management Board |
| CMP | Congestion Management Plan |
| CNEL | Community Noise Equivalent Level |
| CO | Carbon monoxide |
| CO ₂ | Carbon dioxide |
| CPUC | California Public Utilities Commission |
| CRA | Community Redevelopment Agency |
| CRWQCB | California Regional Water Quality Control Board |
| CTP | Comprehensive Transportation Plan |
| CUP | Conditional Use Permit |
| CUPA | Certified Unified Program Agency |
| CWA | Clean Water Act |
| dB | decibel |
| dBA | A-weighted decibel |
| DEIR | Draft Environmental Impact Report |
| DHS | California Department of Health Services |
| DIF | Development Impact Fees |
| DOT | U. S. Department of Transportation |
| DPM | Diesel Particulate Matter |
| DPW | Department of Public Works |
| DTSC | California Department of Toxic Substances Control |
| EIR | Environmental Impact Report |
| EMS | Energy Management System |
| EPA | Environmental Protection Agency |

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|----------|---|
| FCAA | Federal Clean Air Act |
| Fed/OSHA | Federal Occupational Safety and Health Administration |
| FEMA | Federal Emergency Management Agency |
| FHWA | Federal Highway Administration |
| FIRM | Flood Insurance Rating Map |
| fpm | feet per minute |
| GHG | Greenhouse Gas |
| GLA | Gross Leasable Area |
| GMP | Growth Management Plan |
| GPA | General Plan Amendment |
| gpd | gallons per day |
| HCM | Highway Capacity Manual |
| HOV | High Occupancy Vehicle |
| HPLV | High Pressure Low Volume |
| HSC | Health and Safety Code |
| HSWA | Hazardous and Solid Waste Amendments Act |
| HUD | U. S. Department of Housing and Urban Development |
| HVAC | Heating, Ventilation, & Air Conditioning |
| ICU | Intersection Capacity Utilization |
| IS | Initial Study |
| ISTEA | Intermodal Surface Transportation Efficiency Act |
| ITE | Institute of Transportation Engineers |
| IWA | Integrated Waste Management Act |
| kV | kilovolt |
| kVA | kilovolt-ampere |
| Ldn | day/night average sound level |
| LEA | Local Enforcement Agency |
| LED | light-emitting diodes |
| Leq | equivalent sound level |
| LEED | Leadership in Energy and Environmental Design |
| LOS | Level of Service |
| LST | Localized Significance Threshold |

| | |
|-------------------|---|
| M | Richter Magnitude |
| MBTA | Migratory Bird Treaty Act |
| mgd | million gallons per day |
| MOE | Measure of Effectiveness |
| MPE | maximum probable earthquake |
| mph | miles per hour |
| MPO | Metropolitan Planning Organization |
| MRF | Materials Recycling Facility |
| MSDS | Material Safety Data Sheets |
| msl | mean sea level |
| MSW | Municipal Solid Waste |
| MTA | Metropolitan Transit Authority |
| µg/m ³ | micrograms per cubic meter |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NDFE | Non-Disposal Facility Element |
| NIH | National Institutes of Health |
| NO ₂ | Nitrogen dioxide |
| NOI | Notice of Intent |
| NOP | Notice of Preparation |
| NO _x | Oxides of nitrogen |
| NPDES | National Pollutant Discharge Elimination System |
| NRC | Nuclear Regulatory Commission |
| O ₃ | Ozone |
| OAP | Ozone Attainment Plan |
| OEHHA | California Office of Environmental Health Hazard Assessment |
| OES | Office of Emergency Services |
| OIMP | Odor Impact Minimization Plan |
| OSHA | Occupational Safety and Health Administration |
| PA | Preliminary Assessment |
| Pb | Lead |
| PCE | passenger car equivalency |

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|-------------------|--|
| PD | Planned Development |
| PM _{2.5} | Particulate Matter Less Than 2.5 Microns in Diameter |
| PM ₁₀ | Particulate Matter Less Than 10 Microns in Diameter |
| PPE | Personal Protection Equipment |
| ppm | parts per million |
| PV | Photovoltaic |
| RCRA | Resource Conservation and Recovery Act |
| RECs | Recognized Environmental Conditions |
| REMEL | Reference Energy Mean Emission Level |
| RFPA | Regional Fire Protection Authority |
| RMP | Risk Management Plan |
| ROG | Reactive Organic Gases |
| RTA | Retail Trade Area |
| RUWMP | Regional Urban Water Management Plan |
| RWQCB | Regional Water Quality Control Board |
| SARA | Superfund Amendments & Reauthorization Act |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCE | Southern California Edison |
| SCH | State Clearinghouse |
| SIP | State Implementation Plan |
| SLM | Sound Level Meter |
| SO _x | Oxides of sulfur |
| SRRE | Source Reduction and Recycling Element |
| SSC | Species of Special Concern |
| SWPPP | Storm Water Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TAC | Toxic Air Contaminants |
| TEA-21 | Transportation Equity Act for the 21st Century |
| TIA | Traffic Impact Analysis |
| TIS | Traffic Impact Study |
| TPD | tons per day |

| | |
|-------|---|
| UBC | Uniform Building Code |
| UFC | Uniform Fire Code |
| USEPA | United States Environmental Protection Agency |
| USFS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| UWMP | Urban Water Management Plan |
| V/C | Volume to Capacity |
| VdB | vibration decibel |
| VMT | vehicle miles traveled |
| VOC | Volatile Organic Compound |
| WQMP | Water Quality Management Plan |

7.0 REFERENCES

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PERSONS AND ORGANIZATIONS CONSULTED

City of Ontario

Chuck Mercier, Principal Planner

Project Applicant

Thomas Donahue

Prologis

3546 Concourse Street, Suite 100

Ontario, California 91764

EIR PREPARERS

Applied Planning, Inc.

Ross S. Geller, Principal

Charly Ray, Senior Project Manager

Amy Flores, Assistant Project Manager

Jennifer Gilbert, Staff Editor

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