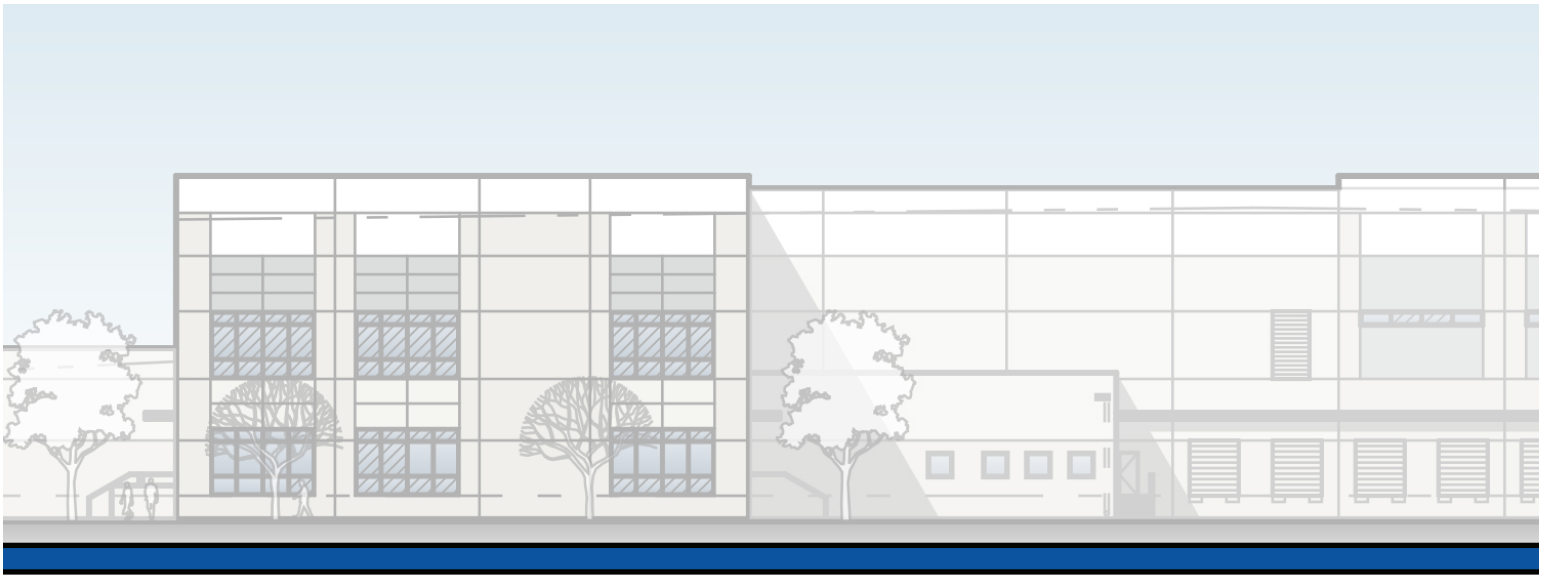

Draft Environmental Impact Report

SCH No. 2016121057

Chino Parcel Delivery Facility

City of Chino, California

Lead Agency

City of Chino
13220 Central Avenue
Chino, CA 91710

Public Review Draft | February 2019

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Chino Parcel Delivery Facility

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Lead Agency
City of Chino
13220 Central Avenue
Chino, CA 91710

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Lead Agency Discretionary Permits
General Plan Amendment (PL16-0638)
Specific Plan Amendment (PL16-0639)
Master Site Approval (PL16-0719)
Site Approval (PL16-0720)
Special Conditional Use Permit (PL16-0721)

February 2019

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EIR Technical Appendices (bound separately)

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ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASURE

Acronym	Definition
§	Section
a.m.	Ante Meridiem (between the hours of midnight and noon)
AB	Assembly Bill
AB 32	Assembly Bill 32
AB 52	Assembly Bill 52
AB 197	Assembly Bill 97
AB 1493	Assembly Bill 1943
ACMs	Asbestos Containing Materials
ACOE	Army Corps of Engineers
ADT	Average Daily Traffic
AEP	Association of Environmental Professionals
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
amsl	Above Mean Sea Level
A-P Act	Alquist-Priolo Earthquake Fault Zoning Act
APS	Alternative Planning Strategy
APN	Assessor Parcel Number
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
ASTM	American Society of Testing and Materials
ASTs	Above ground storage tanks
BAU	Business as Usual
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod™	California Emissions Estimator Model
Cal Fire	California Department of Forestry and Fire Protection
CalGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
Calveno	California Vehicle Noise Emission Levels
CAO	Chino Airport Overlay
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBDA	Chino Basin Dairy Area
CBSC	California Building Standards Code

CCAA	California Clean Air Act
CCCC	California Climate Change Center
CCR	California Code of Regulations
CD	consistency determination
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFCs	Chlorofluorocarbons
C_2F_6	Hexaflouroethane
CF_4	Tetraflouromethane
CF_3CH_2F	HFC-134a
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CGC	California Government Code
CGS	California Geological Survey
C_2H_6	Ethane
CH_4	Methane
CH_3CHF_2	HFC-152a
CHF_3	HFC-23
CIWMB	California Integrated Waste Management Board
CLCA	California Land Conservation Act
CMP	San Bernardino County Congestion Management Program
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COHb	carboxyhemoglobin
COP	Conference of the Parties
CPD	Chino Police Department
CSU	California State University Fullerton
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CVIFD	Chino Valley Independent Fire District
CVUSD	Chino Valley Unified School District
CWA	Clean Water Act
c.y.	cubic yards
dB	Decibel
dBA	A-weighted Decibels
DIF	Development Impact Fee
DOC	Department of Conservation
DOE	Determination of Eligibility

DOSH	Division of Occupational Safety and Health
DPM	Diesel Particulate Matter
DSSF	Delhi-Sands flower-loving Fly
DTSC	Department of Toxic Substances Control
E. Avg	energy average
EB	Eastbound
EDR	Environmental Data Resources
e.g.	for example
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EPS	Emission Performance Standard
ESA	Endangered Species Act
ESA	Environmental Site Assessment
ESFR	Early Suppression, Fast Response
EV	Electric Vehicle
F	Fahrenheit
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
FYI	for your information
GBN	Ground-Based Noise
GBV	Ground-Based Vibration
GCC	Global Climate Change
Gg	Gigagrams
GHG	Greenhouse Gas
GIS	Geographic Information System
GLA	Glenn Lukos Associates
GPA	General Plan Amendment
GWP	Global Warming Potential
H_2O	Water Vapor
HCP	Habitat Conservation Plan
HETs	high-efficiency toilets
HFCs	Hydrofluorocarbons
HMBEP	Hazardous Materials Business Emergency Plan
HMTA	Hazardous Materials Transportation Act
HMTUSA	Hazardous Materials Transportation Uniform Safety Act
HSC	Health and Safety Code

HSWA	Hazardous and Solid Waste Amendments
HWCL	Hazardous Waste Control Law
I	Interstate
I-15	Interstate 15
i.e.	that is
ICAO	International Civil Aviation Organization
in.	inches
in/sec	inches per second
in/yr	inches per year
IPCC	Intergovernmental Panel on Climate Change
IRWMP	Integrated Regional Water Management Plan
ITP	incidental take permit
JPA	Joint Powers Authority
kBTU/yr	thousand British thermal units per year
kWh	kilowatt-hour
Leq	equivalent continuous sound level
Lmax	Maximum level measured over the time interval
LBP	lead based paint
LCA	Life-cycle analysis
LCC	Land Capability Classification
LCFS	low carbon fuel standard
LE	Land Evaluation
LESA	Land Evaluation and Site Assessment
LOS	Level of Service
LSA	Lake and Streambed Alteration Agreement
LSTs	Localized Significance Thresholds
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
MEISC	maximally exposed individual school child
MEIR	maximally exposed individual receptor
MEIW	maximally exposed individual worker
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMTs	million metric tons
MMTCO2e	million metric tons of carbon dioxide equivalent
MPD	master plan of drainage
mpg	miles per gallon
MPH	miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSA	Master Site Approval
MSHCP	Multiple Species Habitat Conservation Plan

MT	metric ton
MTCO2e	Metric Tons of Carbon Dioxide Equivalent
MW	megawatt
MWh	megawatt-hour
n.d.	no date
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NDCs	naturally determined contributions
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NMFS	National Marine Fisheries Service
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
N_2	Nitrogen
N_2O	Nitrous Oxide
NAHC	Native American Heritage Commission
NOP	Notice of Preparation
NPPA	Native Plant Protection Act
NPDES	National Pollutant Discharge Elimination System
NPRM	Notice of Proposed Rule Making
NPS	National Park Service
NPS	Non-Point Source
NRHP	National Register of Historic Places
NTR	National Toxics Rule
NVIA	Noise and Vibration Impact Assessment
O_2	Oxygen
O_3	Ozone
OEHHA	Office of Environmental Health Hazards Assessment
OPR	Office of Planning and Research
OSHA	Occupational and Safety Health Act
Pb	Lead
PCBs	Polychlorinated biphenyls
PF	Public Facilities
PFCs	Perfluorocarbons
p.m.	Post Meridiem (between the hours of noon and midnight)
PM	Particulate Matter
$PM_{2.5}$	Fine Particulate Matter (2.5 microns or smaller)
PM_{10}	Fine Particulate Matter (10 microns or smaller)
ppm	parts per million
PRC	Public Resources Code

RCB	Reinforced Concrete Box
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
REC	Recognized Environmental Concerns
REMEL	Reference Energy Mean Emission Level
rms	root mean square
ROGs	Reactive Organic Gasses
RPS	Renewable Portfolio Standards
RPZ	Runway Protection Zone
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SA	Site Approval
SA	Site Assessment
SANBAG	San Bernardino Associated Governments
SARA	Superfund Amendments and Reauthorization Act
SAWPA	Santa Ana Watershed Project Authority
SB	Senate Bill
SB 18	Senate Bill 18
SB 32	Senate Bill 32
SB 50	Senate Bill 50, Leroy F. Greene School Facilities Act of 1998
SB 375	California Senate Bill 375, Sustainable Communities and Climate Protection Act of 2008
SB 1368	Senate Bill 1368
SBCDA	San Bernardino County Department of Agriculture
SBCM	San Bernardino County Museum
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCH	California State Clearinghouse (Office of Planning and Research)
SCG	Southern California Geotechnical
SCS	Sustainable Communities Strategy
SCUP	Special Conditional Use Permit
SDWA	Safe Drinking Water Act
SF/s.f.	square foot or square feet
SF_6	Sulfur Hexafluoride
SHA	Safe Harbor Agreement
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Officer
SHRC	State Historical Resources Commission
SIP	State Implementation Plan
SLF	Sacred Lands File
SNURs	Significant New Use Rules
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides

SPA	Specific Plan Amendment
SR	State Route
SR-60	State Route 60
SR-71	State Route 71
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Regional Control Board
TAC	Toxic Air Contaminants
TSF	thousand square feet
µg	microgram
$\mu g/m^3$	microgram per cubic meter
UBC	Uniform Building Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USTs	Underground storage tanks
UWMP	Urban Water Management Plan
Vdb	Vibration Decibel
VMT	Vehicles Miles Traveled
VOCs	Volatile Organic Compounds
WB	Westbound
WDR	Waste Discharge Requirements
WMI	Watershed Management Initiative
WQMP	Water Quality Management Plan
WVMVCD	West Valley Mosquito and Vector Control District
ZORI	Zones of Required Investigation

S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

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

This Environmental Impact Report (EIR), having California State Clearinghouse (SCH) No. 2016121057, was prepared in accordance with CEQA Guidelines Article 9, §§ 15120-15132 to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed Chino Parcel Delivery Facility Project (hereafter, the "Project" or "proposed Project"). This EIR does not recommend approval or denial of the proposed Project; rather, this EIR is a source of factual information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a minimum period of 45 days. After consideration of public comment, the City of Chino will consider certifying the Final EIR and adopting required findings.

This Executive Summary complies with CEQA Guidelines § 15123, "Summary." This EIR includes a description of the proposed Project and evaluates the physical environmental effects that could result from Project implementation. The City of Chino determined that the scope of this EIR should cover 15 subject areas. The scope was determined through the completion of an Initial Study accepted by the City of Chino's independent judgment pursuant to CEQA Guidelines § 15063, and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP, are attached to this EIR as *Technical Appendix A*. As determined by the Initial Study and in consideration of public comment on the NOP, the 15 environmental subject areas that could be reasonably and significantly affected by planning, constructing, and/or operating the proposed Project are analyzed herein, including:

1. Aesthetics
2. Agriculture and Forestry
3. Air Quality
4. Biological Resources
5. Cultural Resources & Tribal Cultural Resources
6. Geology and Soils
7. Greenhouse Gas Emissions
8. Hazards and Hazardous Materials
9. Hydrology and Water Quality
10. Land Use and Planning
11. Noise
12. Population and Housing
13. Public Services
14. Transportation and Traffic
15. Utilities and Service Systems

Refer to EIR Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. Note that Subsection 4.8 also covers the topic of Wildfire. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant detailed analysis in this EIR are addressed in EIR Section 5.0, *Other CEQA Considerations*. Note that Section 5.0 also covers the topic

of Energy. For each of the aforementioned subject areas, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse (September 23, 2017); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid significant adverse environmental impacts that the proposed Project may cause. A summary of the proposed Project's significant environmental impacts and the mitigation measures imposed by the City of Chino on the Project to lessen or avoid those impacts is included in this Executive Summary as Table S-1, *Mitigation Monitoring and Reporting Program*. The City of Chino applies mitigation measures that it determines 1) are feasible and practical for project applicants to implement, 2) are feasible and practical for the City of Chino to monitor and enforce, 3) are legal for the City to impose, 4) have an essential nexus to the Project's impacts, and 4) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to impose mitigation measures that are duplicative of mandatory regulatory requirements.

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND SETTING

As defined in EIR Section 1.0, *Introduction*, for purposes of analysis in this EIR, the "Project site" consists of approximately 74.4 acres in the southern portion of the City of Chino, in an area known as "The Preserve." The Project site is generally located south of the City of Ontario, west of the City of Eastvale, and east of the City of Chino Hills. The Project site is approximately 4.0 miles west of Interstate 15 (I-15), approximately 3.2 miles northeast of State Route 71 (SR-71), and approximately 3.3 miles south of State Route 60 (SR-60). The Project site's location is illustrated on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*.

At the local scale, the Project site is located south of Merrill Avenue and west of Flight Avenue as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographical Map*, in Section 3.0 of this EIR.

S.2.2 PROJECT SUMMARY

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the proposed Chino Parcel Delivery Facility and all of the activities associated with its implementation (including planning, construction, and ongoing operation). The Project would be developed on an approximately 74.4-acre property located south of Merrill Avenue and west of Flight Avenue in the City of Chino, San Bernardino County, California, and would require the demolition of the property's existing residential and agricultural/dairy buildings and the construction and operation of a parcel delivery facility. The Project also includes associated site improvements, including drive aisles, landscaping, utility infrastructure, water quality basins, exterior lighting, and signage. The principal discretionary actions requested by the Project Applicant to implement the proposed Project include a General Plan Amendment (PL16-0638), Specific Plan Amendment (PL16-0639), Master Site Approval (PL16-0719), Site Approval (PL16-0720), and Special Conditional Use Permit (PL16-0721). Refer to EIR Section 3.0, *Project Description*, for a detailed description of the proposed Project.

S.2.3 PROJECT OBJECTIVES

The underlying purpose of the Project and the primary goal of the Project Applicant and City of Chino in undertaking the Project is to develop an underutilized property in the City of Chino with a hub facility for a parcel delivery services company. The Project would achieve this goal through the following specific objectives.

A: To develop an underutilized property of more than 70 acres with a parcel delivery services hub facility that will modernize and streamline parcel delivery logistics in the Inland Empire area.

B: To provide a viable reuse plan for former agricultural property that maximizes feasible development of the site so that the property continues to be economically productive when agricultural activities cease.

C: To benefit the City of Chino economy by developing a large property with an employment-generating land use with long-term economic viability.

D: To create an employment-generating business in the City of Chino thereby reducing the need for members of the local workforce to commute outside the area for employment.

E: To develop a project in close proximity to regional transportation routes, including designated truck routes, to minimize traffic congestion on surface streets, reduce vehicle miles traveled (VMT), and minimize concomitant air pollution emissions from vehicle sources.

F: To develop a project with an architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.

G: To develop a property that has access to existing, available infrastructure.

H: To add an industrial use in the City of Chino that will add to the diversity of uses already present in the City.

S.3 EIR PROCESS

An Initial Study was prepared by the City of Chino to determine whether any aspect of the proposed Project, either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to *Technical Appendix A* for a copy of the Initial Study). For this Project, the Initial Study indicated that this EIR should focus on 15 environmental subject areas listed above in Subsection S.1. After completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. The Initial Study and NOP were distributed for a 30-day public review period, which began on September 23, 2017. The City of Chino received written comments on the scope of the EIR during those 30 days, which were considered by the City during the preparation of this EIR.

The City also held an EIR scoping meeting open to the interested public agencies and members of the general public on October 11, 2017.

This EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, an advertisement will be published in the Chino Champion (a newspaper of general circulation in the Project area), and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, the City will prepare and publish responses to written comments it received on the environmental effects of the proposed Project. The Final EIR will be considered for certification by the Chino City Council. Certification of the Final EIR would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR. The MMRP will ensure CEQA compliance during Project construction and operation.

S.4 Areas of Controversy and Issues to be Resolved

CEQA Guidelines § 15123(b)(2) requires the Lead Agency (City of Chino) to identify any known issues of controversy in the Executive Summary. The Lead Agency has not identified any issues of controversy associated with the Project after consideration of all comments received in response to the NOP. Notwithstanding, the Lead Agency has identified several issues of local concern including, but not limited to, potential impacts to agricultural resources, air quality, biological resources, cultural resources, greenhouse gas emissions, noise and traffic.

Regarding issues to be resolved, this EIR addresses the environmental issues that are known by the City, that are identified in the Initial Study prepared for the Project, and that were identified in the comment letters that the City of Chino received on this EIR's NOP (refer to *Technical Appendix A*), and comments received during the EIR scoping meeting. Items raised in written comment to the NOP are summarized in Table 1-1, *Summary of NOP Comments*, in Section 1.0 of this EIR.

S.5 Alternatives to the Proposed Project

In compliance with CEQA Guidelines § 15126.6, an EIR must describe a range of reasonable alternatives to the Project. A brief description of the alternatives to the Project considered in this EIR is provided below; a detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in EIR Section 6.0, *Alternatives*. Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis.

S.5.1 No Development Alternative

The No Development Alternative considers no development on the Project site beyond what occurs on the site under existing conditions (as defined in EIR Section 2.0). As such, the dairy farm, cultivated agricultural fields, two (2) residences, and ancillary agricultural buildings/improvements would remain on-site. Under this alternative, no new improvements would be made to the Project site. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing state.

Implementation of the No Development Alternative would result in no physical environmental impacts on the Project site beyond those that have historically occurred on the property. All significant effects of the proposed Project would be avoided or lessened by the selection of this alternative. The No Development Alternative would fail to meet all of the Project's objectives.

S.5.2 No Project Alternative

The No Project Alternative would develop the Project site with uses that comply with The Preserve Specific Plan's existing land use designation for the site (i.e., "Public Facility") and, also, that are consistent with the development restrictions applied to the site by the Specific Plan's "Chino Airport Overlay" regulations. Accordingly, this alternative considers the potential environmental impacts that would occur where the northern portion of the Project site is developed with a place of worship, library, and/or museum and the southern portion of the Project site is developed with minor utilities facilities (e.g., electrical substation, water/sewer pump station) and/or a parking lot for automobiles and/or trucks. This alternative was selected by the Lead Agency to compare the environmental effects of the Project against a development proposal that conforms to the land use standards and development regulations contained within The Preserve Specific Plan.

The No Project Alternative would avoid the Project's significant and unavoidable impact to land use and planning and, likely, would avoid the Project's significant and unavoidable air quality impact. The No Project Alternative would likely avoid some, but not all, of the Project's transportation and traffic impacts. The No Project Alternative would not avoid the Project's significant and unavoidable impact to agricultural resources. The No Project Alternative would fail to meet the Project's Objectives "A," "B," "C," "D," and "E".

S.5.3 Warehouse Complex Alternative

The Warehouse Complex Alternative would develop the Project site with two (2) high-cube warehouse buildings – one (1) approximately 1,100,000 s.f., north-south oriented building on the northern portion of the property and one (1) approximately 300,500 s.f., east-west oriented building on the southern portion of the property. This alternative was selected by the Lead Agency to evaluate an alternative that allows for the Project site to be developed with a different industrial land use (i.e., high-cube warehouse) than the industrial land use proposed by the Project (i.e., parcel sorting/distribution hub facility).

The Warehouse Complex Alternative would not avoid any the Project's significant and unavoidable impacts; but, would reduce the severity of the Project's impacts to air quality and transportation and traffic. The Warehouse Complex Alternative would fail to meet the Project's Objectives "A" and "C" and would meet

Project Objective "D" less effectively than the proposed Project. The Warehouse Complex Alternative is identified as the environmentally superior alternative.

S.6 Summary of Impacts, Mitigation Measures, and Conclusions

S.6.1 Effects Found Not to be Significant

The scope of detailed analysis in this EIR includes the 15 subject areas identified in the Initial Study prepared under the supervision of the City of Chino pursuant to CEQA Guidelines § 15063 and CEQA Statute § 21002(e), as well as consideration of public comments received by the City on this EIR's NOP and during the EIR scoping meeting. The Initial Study, NOP, and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A*. Subject areas for which the City concluded that impacts clearly would be less than significant and that do not warrant detailed analysis in this EIR include: Mineral Resources and Recreation. This EIR addresses these two (2) topics in EIR Subsection 5.0, *Other CEQA Considerations*.

S.6.2 Impacts of the Proposed Project

Table S-1, *Mitigation Monitoring and Reporting Program*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines § 15123(a). Also presented are the mitigation measures recommended by the City of Chino to further avoid adverse environmental impacts or to reduce their level of significance. After the application of all feasible mitigation measures, the Project would result in four (4) significant and unavoidable environmental effects, as summarized below.

- Agriculture and Forestry Resources: The Project would convert Farmland with substantial agricultural production value to non-agricultural use. The loss of the Farmland on the Project site would be a significant direct and cumulatively-considerable impact in consideration of the past, ongoing, and projected future loss of farmland in the CBDA.

- Air Quality: After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, long-term operational-related NO_X emissions would still exceed the applicable SCAQMD regional threshold for daily emissions. The Project's NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations, which do not meet regional attainment status).

- Land Use and Planning: The Project's conflict with the existing City of Chino General Plan Land Use Map and The Preserve Specific Plan Land Use Plan would indirectly result in significant environmental impacts, including impacts related air pollutant emissions and traffic congestion.

- Transportation/Traffic: The addition of Project-related traffic would contribute to LOS deficiencies at numerous Study Area intersections and *CMP* facilities during Existing plus Project, Opening Year, and Horizon Year (2040) traffic conditions.

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.1 Aesthetics					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not substantially affect a scenic vista. The Project site does not contain any designated scenic vistas or scenic corridors. The Project would not substantially affect views of the San Gabriel Mountains and Chino Hills from nearby public viewing areas; views of these landforms would remain visible from public viewing areas after implementation of the Project.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: No Impact. The Project would not damage scenic resources within a State scenic highway corridor. There are no State-designated or eligible scenic highways within the vicinity of the Project site and the Project site does not contain scenic resources such as trees of scenic value, rock outcroppings, or historic buildings that are visible from a State scenic highway.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold c: Less-than-Significant Impact. The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the Project would change the visual character of the site from dairy operations to a parcel delivery facility, the Project's surrounding area is transitioning from agricultural to non-agricultural, urbanized land uses. Furthermore, the Project proposes a number of site design, architectural, and landscaping elements consistent with the requirements of The Preserve Specific Plan that would ensure the Project's character is consistent with the	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
planned vision for the Specific Plan area. Impacts to visual character and quality would be less than significant.					
Threshold d: Less-than-Significant Impact. The Project would not create substantial light or glare. Compliance with The Preserve Specific Plan design guidelines and City of Chino Municipal Code requirements for artificial lighting would ensure less-than-significant impacts associated with light and glare affecting day or nighttime views in the area.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.2 Agriculture and Forestry					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project would convert land designated as Prime Farmland by the California Department of Conservation with substantial agricultural production value to non-agricultural use. The loss of the Farmland on the Project site would be a significant direct impact and also would be cumulatively considerable in consideration of the past, ongoing, and projected future loss of farmland in the CBDA.	No feasible mitigation is available.	N/A	N/A	N/A	Significant Direct and Cumulatively-Considerable Impact
Threshold b: No Impact. The Project site is not subject to a Williamson Act Contract and is not zoned for agricultural use; therefore, the Project would not conflict with a Williamson Act Contract or agricultural zoning.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold c: No Impact. The Project site is not zoned for forest land; therefore, the Project would not conflict with any zoning for forest land resources.	No mitigation is required.	N/A	N/A	N/A	No Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold d: No Impact. There are no forest lands, timberland, or Timberland Production-zoned land on the Project site; therefore, the Project would not result in the loss of forest land or conversion of forest land to non-forest use.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold e: Significant Direct and Cumulatively-Considerable Impact. Implementation of the Project would not involve other changes to the existing environment, which, due to their location or nature, could result in conversion of off-site Farmland, to non-agricultural use or conversion of forest land to non-forest use. The Project would convert Prime Farmland located on the eastern portion of the Project site to non-agricultural use, which is a significant direct and cumulatively considerable impact.	No feasible mitigation is available.	N/A	N/A	N/A	Significant Direct and Cumulatively-Considerable Impact
4.3 Air Quality					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project would conflict with the growth projections contained in the SCAQMD's *2016 AQMP*.	**MM 4.3-1** The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, the City of Chino shall verify that the following notes are specified on the grading plan and within the construction management plan required in accordance with City of Chino Municipal Code Section 20.23.210. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Chino staff or its designee to confirm compliance.	Project Applicant; Project Construction Contractors	City of Chino Development Services Department (Planning and Building Divisions)	During construction activities	Significant Direct and Cumulatively-Considerable Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site. b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads. c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads. d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., install wheel shakers, wheel washers, limit site access). e) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. f) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers				

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets. g) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action to legitimate complaints within 24 hours. h) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil. i) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403. j) A high wind response plan shall be formulated and implemented for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.				
	MM 4.3-2 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 "PM_{10} Emissions from Paved and Unpaved Roads and Livestock Operations" and Rule 1186.1, "Less-Polluting Street Sweepers" by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Chino shall verify that the following notes are included on the grading and building plans and within the construction management plan required in accordance with City of Chino Municipal Code Section 20.23.210. Project construction contractors shall be required to ensure	Project Applicant; Project Construction Contractors	City of Chino Development Services Department (Planning and Building Divisions)	Prior to grading and building permit issuance	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	compliance with the notes and permit periodic inspection of the construction site by City of Chino staff or its designee to confirm compliance. a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning. b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM10-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.				
	MM 4.3-3 Prior to the issuance of a building permit, the Project Applicant shall provide documentation to the City of Chino demonstrating that the Project is designed to exceed the California Energy Code (Title 24, Part 6) standards in effect at the time of building permit application submittal by three (3) percent and includes the energy efficiency design features listed below at a minimum. a) Preferential parking locations for carpool, vanpool, EVs and CNG vehicles; b) At least fifty percent (50%) of the yard trucks used on-site shall be powered by gasoline, natural gas, and/or electricity; and c) All fixtures installed in restrooms and employee break areas shall be U.S. EPA Certified WaterSense or equivalent.	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a building permit	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.3-4 Prior to the issuance of permits that would allow the installation of landscaping, the City of Chino shall review and approve landscaping plans for the site that requires: 1) a plant palette emphasizing drought-tolerant plants; and 2) use of water-efficient irrigation technique. The City of Chino shall inspect for adherence to these requirements after landscaping installation.	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of permits that would allow the installation of landscaping	
	MM 4.3-5 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 three (3) 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 of Chino shall conduct a site inspection to ensure that the signs are in place.	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	
	MM 4.3-6 Prior to the issuance of an occupancy permit, the Project Applicant or successor in interest shall provide documentation to the City of Chino 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.	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	
Thresholds b and c: Significant Direct and Cumulatively-Considerable Impact. The Project would exceed the applicable	Refer to MM 4.3-1 through MM 4.3-6, above.				Significant Direct and Cumulatively-Considerable Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
SCAQMD regional thresholds for NO_X emissions during long-term operation. As such, Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB, which is a significant direct and cumulatively-considerable impact.					
Threshold d: Less-than-Significant Impact. The Project's localized criteria pollution emissions during construction and operation would not exceed the applicable SCAQMD thresholds. The Project also would not expose sensitive receptors to toxic air contaminants (i.e., DPM) that exceed the applicable SCAQMD carcinogenic and non-carcinogenic risk thresholds. Lastly, the Project would not cause or contribute to the formation of a CO "hot spot."	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold e: Less-than-Significant Impact. The Project would not produce air emissions that would lead to unusual or substantial construction-related odors. Odors associated with long-term operation of the Project would be minimal and less than significant. The Project would comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.4 Biological Resources					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. No sensitive vegetation communities, special-status plant species, or special-status wildlife species are located within the Project impact area. The Project site does contain habitat that is suitable for the burrowing owl and	**MM 4.4-1** No sooner than 30 days prior to and no later than 14 days prior to grading activities, a qualified biologist shall conduct a survey of the Project's impact footprint and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted	Project Biologist	City of Chino Development Services Department (Planning and Building Divisions)	No sooner than 30 days prior to and no later than 14 days prior to grading activities	Less-than-Significant Impact after Mitigation

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
there is the potential that the burrowing owl could migrate onto the property before Project construction commences; in this event, impacts to the burrowing owl would be significant on a direct and cumulatively-considerable basis. The Project would have no substantial impact, either directly or through habitat modifications, on any other candidate, sensitive, or special-status plant or wildlife species.	by the City of Chino prior to the issuance of a grading permit and subject to the following provisions: a) In the event that the pre-construction survey detects no burrowing owls in the impact area, a grading permit may be issued without restriction. b) In the event that the pre-construction survey detects the burrowing owl within the Project's impact footprint, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the Project Applicant shall ensure at minimum that Project-related activities occur in conformance with the burrowing owl mitigation standards established by the *City of Chino Subarea 2 Resources Management Plan*. i. Prior to disturbance of occupied burrows, natural or artificial replacement burrows shall be provided at a ratio of 2:1 within a City-designated relocation area. A qualified biologist shall confirm the replacement burrows are unoccupied and suitable for burrowing owl use prior to disturbance of occupied burrows. ii. No disturbance shall occur within 50 meters of occupied burrows during the non-breeding season (September 1 through January 31) or within 75 meters of occupied burrows during the breeding season (February 1 through August 31), until the Project Applicant provides evidence to the City of Chino that suitable replacement burrows have been provided. iii. Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from				

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	the occupied burrows are foraging independently and are capable of independent survival. iv. If burrowing owls are present at the time occupied burrows are to be disturbed, the owls shall be excluded from the site in accordance with CDFW relocation protocol and the protocol established in Table 4-6 of the *City of Chino Subarea 2 Resources Management Plan*. v. Subject to the provisions of the Subdivision Map Act vesting map requirements, if the City of Chino has established a mitigation fee program for the long-term management of burrowing owl habitat as recommended by the *City of Chino Subarea 2 Resources Management Plan*, prior to issuance of a grading permit, the Project Applicant shall pay the appropriate mitigation fee to the City of Chino.				
Threshold b: No Impact. The Project impact area does not contain riparian and/or other sensitive natural habitats; therefore, the Project would have no impact on riparian or other sensitive habitats as defined by the CDFW or USFWS.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold c: No Impact. No State or federally protected wetlands are located within the Project impact area; therefore, no impact to wetlands would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold d: Significant Direct and Cumulatively-Considerable Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. However, the Project has the potential to impact nesting migratory birds protected by the MBTA and California Fish and Game Code.	**MM 4.4-2** Vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (January 31 through September 1), unless a migratory bird nesting survey is completed in accordance with the following requirements:	Project Biologist	City of Chino Development Services Department (Planning and Building Divisions)	Within three (3) days prior to initiating vegetation clearing or ground disturbance	Less-than-Significant Impact after Mitigation

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	a) A migratory bird nesting survey of the Project site and the Project's off-site development area, including suitable habitat within a 250-foot radius, shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance. A copy of the migratory nesting bird survey results report shall be provided to the City of Chino. b) If the survey does not identify the presence of any active nests, then construction activities can proceed without restriction. c) If the survey identifies the presence of active nests, then the qualified biologist shall provide the City with a copy of maps showing the location of all nests and a species-appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the City and shall be no less than a 100-foot radius around the nest for non-raptors and no more than a 500-foot radius around the nest for raptors. 1. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing. No construction vehicles shall be permitted within restricted areas (i.e., bird protection zones), unless directly related to the management or protection of the legally protected species, until all nestlings have fledged and left the nest (or the nest has failed). 2. In the event that a nest is abandoned despite efforts to minimize disturbance and, if the nestlings are still alive, the Project Applicant/Developer shall contact the California Department of Fish and Wildlife (CDFW) and,				

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	subject to CDFW approval, fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).				
	MM 4.4-3 Prior to the issuance of a grading or clearing permit that would permit the removal of ornamental tree windrows from the Project impact area, the following activities shall occur in conformance with the windrow mitigation standards established by the *City of Chino Subarea 2 Resources Management Plan*: a) The Project Applicant shall retain a qualified biologist to prepare a tree replacement program that includes the following minimum information required by the *City of Chino Subarea 2 Resources Management Plan*. The City of Chino shall review and approve the tree replacement program prior to the removal of ornamental windrows: 1. Inventory of trees proposed for removal; 2. Specifications for replacement trees (including tree species, number of trees for each species, and size of replacement trees); 3. Location of proposed on-site replacement area(s) (shall be located in an area supportive of raptor habitat and subject to City approval); 4. Planting requirements; 5. Irrigation requirements; 6. Post-planting monitoring requirements, including germination/survival rates and expected growth rates, for a 5-year period; 7. Requirement to conduct a survey for nesting birds, including raptors, if trees will be removed; 8. Requirement that trees be moved outside the breeding season if birds are determined to be nesting; and	Project Biologist	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading or clearing permit that would permit the removal of ornamental tree windrows from the Project impact area	

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	9. Requirement that a qualified arborist submit an annual report to the City documenting the germination/survival rates and growth rates for all replacement trees, for a 5-year period.				
Threshold e: No Impact. The Project would not conflict with any local policies or ordinances protecting biological resources.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold f: No Impact. The Project impact area is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, no impact would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.5 Cultural Resources & Tribal Cultural Resources					
Summary of Impacts					
Threshold a: No Impact. The Project would not impact a historic resource. No historic resources are present on the Project site; therefore, no historic resources could be altered or destroyed by construction or operation of the Project.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold b: Significant Direct and Cumulatively-Considerable Impact. No known prehistoric resources are present on the Project site and the likelihood of uncovering buried prehistoric resources on the Project site is low due to the magnitude of historic ground disturbance on the Project site (resulting from dairy and agricultural operations). Nonetheless, the potential exists for Project-related construction activities to result in a direct and cumulatively-considerable impact to significant subsurface prehistoric archaeological resources should	**MM 4.5-4** Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that a professional archaeologist (hereafter "Project Archaeologist") has been retained to conduct monitoring of all mass grading activities. The Project Archaeologist shall have the authority to redirect earthmoving activities in the event that suspected archaeological and tribal cultural resources are unearthed during Project construction.	Project Applicant; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading permit	Less-than-Significant Impact after Mitigation

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
such resources to be discovered during Project-related construction activities.					
	MM 4.5-5 Prior the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that the Native American Tribe(s) that requested consultation with the City during the SB 18 and AB 52 processes (hereafter referred to as "Native American Tribal Representatives") received a minimum of 30 days' advance notice of all mass grading and trenching activities. The Native American Tribal Representatives also shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. In the event that suspected archaeological or tribal cultural resources are unearthed, the Native American Tribal Representatives shall have the authority to redirect earth moving activities in the affected area.	Project Applicant; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading permit	
	MM 4.5-6 Prior to the issuance of a grading permit, the Project Applicant or construction contractor shall provide evidence to the City of Chino that the construction site supervisors and crew members involved with grading and trenching operations have received training by the Project Archaeologist to recognize archaeological and tribal cultural resources should such resources be unearthed during ground-disturbing construction activities. Any Native American Tribal Representatives shall be allowed to attend the training session. The training will include a brief review of the cultural sensitivity of the Project site and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring	Project Applicant; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading permit	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel involved with grading and trenching operations that begin work on the Project site following the initial training session must take the training prior to beginning work on the Project site and the Project archaeologist and monitoring Native American Tribe(s) shall make themselves available to provide the training on an as-needed basis.				
	MM 4.5-7 If a suspected significant archaeological or tribal cultural resource is identified on the property, the construction supervisor shall be required by his contract to immediately halt and redirect grading operations in a 100-foot radius around the find and seek identification and evaluation of the suspected resource by the Project Archaeologist and the Native American Tribal Representative. This requirement shall be noted on all grading plans and the construction contractor shall be obligated to comply with the note. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section § 15064.5 and Section 21083.2. If the resource is significant, Mitigation Measure MM 4.5-8shall apply.	Project Applicant; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	If a suspected significant archaeological or tribal cultural resource is identified on the property	
	MM 4.5-8 If a significant archaeological and/or tribal cultural resource is discovered on the property, ground disturbing activities shall be suspended 50 feet around the resource until a treatment plan is implemented. A treatment plan shall be prepared and implemented, subject to approval by the City of	Project Applicant; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	If a significant archaeological and/or tribal cultural resource is discovered on the property	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Chino, to protect the identified resource(s) from damage and destruction. The treatment plan shall contain a research design and data recovery program necessary to document the size and content of the discovery such that the resource(s) can be evaluated for significance under CEQA criteria. The research design shall list the sampling procedures appropriate to exhaust the research potential of the archaeological or tribal cultural resource(s) in accordance with current professional archaeology standards. The treatment plan shall require monitoring by the appropriate Native American Tribe(s) during data recovery and shall require that all recovered artifacts undergo basic field analysis and documentation or laboratory analysis, whichever is appropriate. At the completion of the basic field analysis and documentation or laboratory analysis, any recovered resource(s) shall be processed and curated according to current professional repository standards. The collections and associated records shall be donated to an appropriate curation facility, or, the artifacts may be delivered to the appropriate Native American Tribe(s) if that is recommended by the City of Chino. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City of Chino, the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton, and the appropriate Native American Tribe(s).				

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold c: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature. However, the Project site contains alluvium soils with a high sensitivity for paleontological resources. Accordingly, construction activities on the Project site have the potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface.	**MM 4.5-1** Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that a qualified paleontologist has been retained to conduct monitoring of grading and excavation operations in Quaternary (early-Pleistocene) very old alluvial fan deposits and late-Quaternary (late-Pleistocene and Holocene) sandy axial channel deposits.	Project Applicant; Project Paleontologist	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading permit	Less-than-Significant Impact after Mitigation
	MM 4.5-2 MM 4.5-2 The paleontological monitor shall conduct full-time monitoring in areas of grading or excavation in the shallow subsurface of Quaternary (early-Pleistocene) very old alluvial fan deposits and late-Quaternary (late-Pleistocene and Holocene) sandy axial channel deposits. The paleontological monitor shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that may contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow the removal of abundant and large specimens in a timely manner. In such a situation, the monitor may establish a 50-foot radius surrounding the area of the find, and, construction activities in areas outside this 50-foot radius can proceed. The significance of the discovered resources shall be determined by the paleontologist. If the resource is significant, Mitigation Measure MM 4.5-3 shall apply. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.	Project Applicant; Project Paleontologist	City of Chino Development Services Department (Planning and Building Divisions)	During paleontological monitoring	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.5-3 If a significant paleontological resource is discovered on the property, discovered fossils or samples of such fossils shall be collected and identified by a qualified paleontologist. Significant specimens recovered shall be properly recorded, treated, and donated to the San Bernardino County Museum, Division of Geological Sciences, or other repository with permanent retrievable paleontological storage. Prior to grading permit inspection approval, a qualified paleontologist shall prepare a final report that itemizes any fossils recovered, with maps to accurately record the original location of recovered fossils, and contains evidence that the resources were curated by an established museum repository. The report shall be submitted to the City of Chino.	Project Applicant; Project Paleontologist	City of Chino Development Services Department (Planning and Building Divisions)	If a significant paleontological resource is discovered on the property	
Threshold d: Less-Than-Significant Impact. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 *et seq.* Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to human remains.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold e: No Impact. The Project site does not contain any recorded Native American cultural resources; therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources.	No mitigation is required.	N/A	N/A	N/A	No Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold f: Significant Direct and Cumulatively-Considerable Impact. Construction activities on the Project site have the potential, however unlikely, to unearth and adversely impact tribal cultural resources that may be buried beneath the ground surface.	Refer to MM 4.5-4 through MM 4.5-8, above.				Less-than-Significant Impact after Mitigation
4.6 Geology and Soils					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and state ordinances and building codes including, but not limited to, the CBSC (Chapter 18) and City of Chino Municipal Code § 19.08.010, would ensure that the Project minimizes potential hazards related to seismic ground shaking.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities and adhere to a Storm Water Pollution Prevention Plan (SWPPP), and SCAQMD Rule 403, and Chino Municipal Code § 19.09.03 to minimize water and wind erosion. Following completion of development, the Project would be required by law to implement a WQMP during operation, which would preclude substantial erosion impacts in the long-term.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold c: Less-than-Significant Impact. There is no potential for the Project to cause on- or off-site landslides or lateral spreading. Potential hazards associated with unstable soils would be precluded through mandatory adherence to the recommendations contained in the site-specific geologic engineering report.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: No Impact. The Project site contains soils with no to very low susceptibility to expansion; therefore, the Project would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils. No impact would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold e: No Impact. No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project site. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.7 Greenhouse Gas Emissions					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The GHG emissions generated by the Project would be consistent with the City of Chino CAP. As such, implementation of the Project would not generate substantial GHG emissions – either directly or indirectly – that would have a significant impact on the environment.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project would be consistent with applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.8 Hazards and Hazardous Materials					
Summary of Impacts					
Threshold a and b: Significant Direct Impact. The Project site may contain soils with excessive methane gas concentrations. The handling of these soils during Project construction and the potential hazard these soils may pose to future Project site occupants is considered a significant impact. During Project operation and with mandatory compliance to federal, State, and local regulations, the Project would not create a significant hazard to the public or the environment due to routine transport, use, disposal, or upset of hazardous materials.	**MM 4.8-1** Prior to the issuance of a building permit and no sooner than 30 days after rough grading is complete, a licensed engineer, geologist, or registered environmental assessor shall conduct post-grading methane testing in accordance with universally accepted methods to identify any construction procedures or building design measures, if any, required to meet City of Chino and County of San Bernardino Department of Environmental Health Services soil gas safety standards. Building design measures, which may include utility trench dams, utility conduit seals, sub-slab vents, sub-slab vapor barriers, and sub-slab gas barriers, shall be shown on the Project's construction plans. **MM 4.8-2** Prior to issuance of a building occupancy permit, the Project's engineer of record shall provide a signed letter to the City of Chino confirming that any design measures required pursuant to MM 4.8-1 were installed as designed.	Project Applicant Project Applicant; Project Engineer	City of Chino Development Services Department (Planning and Building Divisions) City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a building permit and no sooner than 30 days after rough grading is complete Prior to issuance of a building occupancy permit	Less-than-Significant Impact after Mitigation
Threshold c: Less-than-Significant Impact. The Project site is not located within one-quarter mile of any existing or proposed school. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts to schools located more than one-quarter mile of the Project site would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold d: No Impact. The Project site is not located on any list of hazardous materials sites complied pursuant to Government Code § 65962.5.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold e: Less-than-Significant Impact. The Project is consistent with the restrictions and requirements of the Chino Airport Land Use Compatibility Plan. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f: No Impact. The Project site is not located within the vicinity of a private airstrip or a helipad. Accordingly, implementation of the Project would have no potential to expose on-site workers to safety hazards associated with a private airfield or an airstrip.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold g: Less-than-Significant Impact. The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold h: No Impact. The Project site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.	No mitigation is required.	N/A	N/A	N/A	No Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.9 Hydrology and Water Quality					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements on a direct or cumulatively considerable basis. Adherence to a SWPPP and WQMP is required as part of the Project's implementation to address construction- and operational-related water quality.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project would not physically impact any of the major groundwater recharge facilities in the Chino groundwater basin. The Project would not substantially decrease or deplete groundwater supplies, interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume, lower the local groundwater table level, cause an impartment to sustainable groundwater management, or conflict with or obstruct the implementation of a sustainable groundwater management plan. Impacts would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project would retain the site's general drainage pattern and would be required to comply with regulatory requirements and incorporate design features as part of Project implementation to minimize erosion and sediment within surface water runoff.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold d: Less-than-Significant Impact. The Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of polluted runoff.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold e: Less-than-Significant Impact. The Project's on-site stormwater drainage system and the off-site Storm Drain Master Plan (MDP) lines that the Project's storm water would flow into have sufficient available capacity to accommodate anticipated surface runoff flows on the Project site. Additionally, the Project is required to be designed in accordance with the City's MDP, and comply with a SWPPP and a site-specific WQMP.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f: No Impact. There are no other components of the Project that would substantially degrade water quality.	No mitigation is required.	N/A	N/A	N/A	No Impact
Thresholds g and h: No Impact. The Project would not construct structures within a 100-year flood hazard area, nor is the Project site located within a 100-year flood hazard area.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold i: No Impact. The Project site would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold j: No Impact. The Project site is not subject to hazards associated with seiches, tsunamis, or mudflow. Therefore, the Project site has no potential to be inundated with water from such events that would result in a risk of release of water pollutants from the site.	No mitigation is required.	N/A	N/A	N/A	No Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.10 Land Use and Planning					
Summary of Impacts					
Threshold a: No Impact. The proposed Project would not physically divide an established community.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold b: Significant Direct and Cumulatively Considerable Impact. The Project's conflict with the existing City of Chino General Plan Land Use Map and The Preserve Specific Plan Land Use Plan would indirectly result in significant environmental impacts, including impacts related air pollutant emissions and traffic congestion.	Refer to MM 4.3-1 through MM 4.3-6, above, and MM 4.14-8, below.				Significant and Unavoidable Direct and Cumulatively Considerable Impact.
Threshold c: No Impact. No habitat conservation plans or natural community conservation plans are applicable to the Project site; thus, no impact would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.11 Noise					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would generate short-term construction and long-term operational noise but would not generate noise levels during construction and/or operation that exceed the standards established by the City of Chino and the City of Ontario Municipal Codes.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. Noise generated during operation of the Project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the Project site.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold d: Less-than-Significant Impact. The Project would not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold e: Less-than-Significant Impact. The Project site is not located within an area exposed to high levels of noise from the Chino Airport. As such, the Project would not expose people to excessive noise levels associated with a public airport or public use airport.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f: No Impact. The Project site is not located near any private airfields or airstrips.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.12 Population and Housing					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The jobs generated by the Project are expected to be filled by the existing labor force in the City and the larger Inland Empire area. Accordingly, the Project would not induce substantial unplanned population growth and impacts would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b and c: Less-than-Significant Impact. The Project site contains two dwelling units under existing conditions, which would be removed as part of the Project. The removal of two dwelling units on the Project site would not displace substantial numbers of people or require the construction of replacement housing elsewhere. Impacts would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.13 Public Services					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project site is served by CVFD Station 63. No new or expanded fire protection facilities are needed. With mandatory payment of Development Impact Fees in compliance with City of Chino Municipal Code Chapter 3.45, the Project would result in a less-than-significant impact to fire protection facilities.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project site is served by the CPD from its headquarters building and an interim substation in The Preserve area, which have adequate physical capacity to service the proposed Project. In the future, the Project site may also be served by a new, permanent police substation that is planned in the Community Core area of The Preserve Specific Plan, the environmental effects of which were previously evaluated under CEQA in The Preserve Specific Plan EIR. With mandatory payment of Development Impact Fees in compliance with City of Chino Municipal Code Chapter 3.45, impacts to police protection facilities would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project would not generate a student population requiring public education services. With mandatory payment of fees in accordance with California Senate Bill 50 (Greene), impacts to public schools would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold d: No Impact. The Project would not generate a resident population requiring public parks. The Project would not result in a substantial or measurable increase in demand for park facilities, and no impact would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold e: No Impact. The Project would not generate a resident population requiring public library services or other public services.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.14 Transportation and Traffic					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively Considerable Impact. The addition of Project-related traffic would contribute to LOS deficiencies at numerous Study Area intersections during Existing plus Project, Opening Year, and Horizon Year traffic conditions.	**MM 4.14-1** Prior to issuance of an occupancy permit, the Project Applicant/Developer shall assure the improvement of the Grove Avenue/Merrill Avenue intersection as follows: a) Install a traffic signal; and b) Add an eastbound left turn lane.	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to issuance of an occupancy permit	Less-than-Significant Direct Impact and Significant Unavoidable Cumulative Impact
	MM 4.14-2 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall assure the improvement of the Flight Avenue/Kimball Avenue intersection as follows: a) Install a traffic signal.	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	
	MM 4.14-3 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall assure the improvement of the Flight Avenue/Merrill Avenue intersection as follows: a) Install a traffic signal; and b) Re-stripe the painted median to provide a northbound left turn lane.	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.14-4 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall assure the improvement of the Flight Avenue/Remington Avenue intersection as follows: a) Install a traffic signal.	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	
	MM 4.14-5 Prior to the issuance of building permits, the Project Applicant/Developer shall comply with the applicable requirements of City of Chino Sub-Area II (The Preserve) Development Impact Fee Preserve (DIF) program, which requires fee payment to the City of Chino (less any fee credits), a portion of which is used by the City to fund the installation of road and intersection improvements to reduce traffic congestion.	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of building permits	
	MM 4.14-6 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall make a fair-share payment to the City of Chino, to be held in trust, for the intersection improvements listed in Table 7-8 of the "Chino Parcel Delivery Traffic Impact Analysis," prepared by Urban Crossroads (dated November 13, 2018) and the Project's fair-share obligations are listed in Table 1-8 of the same report. The City of Chino shall only use the funds for improving the intersections listed therein. If within five years of the date of collection of the Project's fair-share fee payment, the City of Chino has not completed the improvements or established a fair-share funding program for the specified improvements to the respective intersections, then the City of Chino shall return the funds to the Project Applicant/Developer. If, at the time of occupancy permit issuance, Limonite Avenue has been extended over the Cucamonga Creek Channel to connect Hellman Avenue and Archibald Avenue, then this	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	mitigation measure shall be eliminated and MM 4.14-7 shall apply. **MM 4.14-7** Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall make a fair-share payment to the City of Chino, to be held in trust, for the intersection improvements listed in Table 7-9 of the "Chino Parcel Delivery Traffic Impact Analysis," prepared by Urban Crossroads (dated November 13, 2018) and the Project's fair-share obligations are listed in Table 1-9 of the same report. The City of Chino shall only use the funds for improving the intersections listed therein. If within five years of the date of collection of the Project's fair-share fee payment, the City of Chino has not completed the improvements or established a fair-share funding program for the specified improvements to the respective intersections, then the City of Chino shall return the funds to the Project Applicant/Developer. This mitigation measure shall only apply if, at the time of occupancy permit issuance, Limonite Avenue has been extended over the Cucamonga Creek Channel to connect Hellman Avenue and Archibald Avenue.	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	
Threshold b: Cumulatively Considerable Impact. The addition of Project-related traffic would contribute to LOS deficiencies at 13 *CMP* intersections and 1 *CMP* freeway mainline segment within the Project Study Area under Existing plus Project, Opening Year and/or Horizon Year traffic conditions.	**MM 4.14-8** In the event that Caltrans prepares a valid study, as defined below, that identifies fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary undertake improvements to SR-60 in the Project study area, then the Project Applicant/Developer shall use reasonable efforts to pay the applicable fair share amount to Caltrans. The study shall include fair share contributions related to private and or public development based on nexus requirements contained in the Mitigation Fee Act (Govt. Code § 66000 *et seq.*) and 14 Cal. Code of Regs. § 15126.4(a)(4) and, to this end, the study shall	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	In the event that Caltrans prepares a valid study	Significant and Unavoidable Cumulative Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	recognize that development projects within the City of Chino have no fair-share payment obligation for impacts to SR-60 that are not attributable to development located within the City of Chino. The fee study shall also be compliant with Government Code § 66001(g) and any other applicable provisions of law. The study shall set forth a timeline and other relevant criteria for implementation of the recommendations contained within the study to the extent the other agencies agree to participate in the fee study program. In the event the study has been prepared, the Project Applicant/Developer shall use reasonable efforts to pay the fair-share fee to Caltrans. If Caltrans chooses to accept the Project Applicant's/Developer's fair-share payment, Caltrans shall apply the payment to the fee program adopted by Caltrans or agreed upon by the Project Applicant/Developer and Caltrans as a result of the fair-share fee study. Caltrans shall only accept the fair-share payment if the fair-share fee study has been completed. If, within five years from the date that the first building permit is issued for the Project, Caltrans has not completed the fair share fee study, then the Project Applicant/Developer shall have no further obligation to comply with this mitigation measure.				
Threshold c: No Impact. There is no potential for the Project to change air traffic patterns or create substantial air traffic safety risks.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold d: Less-than-Significant Impact. No significant transportation safety hazards would be introduced as a result of the proposed Project.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold e: Less-than-Significant Impact. Adequate emergency access would be provided to the Project site during construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f: Less-than-Significant Impact. The Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities, and is designed to minimize potential conflicts with non-vehicular means of transportation.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.15 Utilities and Service Systems					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not exceed wastewater treatment requirements of the Santa Ana RWQCB. IEUA would provide wastewater treatment and collection services to the Project, and IEUA is required to operate all of its treatment facilities in accordance with applicable waste treatment and discharge standards and requirements set forth by the RWQCB. The proposed Project would not install or use septic systems or alternative wastewater treatment systems.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The environmental effects associated with installing the Project's water and wastewater infrastructure is evaluated throughout this EIR and no impacts specific to the utilities and service systems issue area have been identified.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. Stormwater would be collected on the Project site by an on-site drainage system.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
The environmental effects associated with installing the Project's water and wastewater infrastructure is evaluated throughout this EIR and no impacts specific to the utilities and service systems issue area have been identified.					
Threshold d: Less-than-Significant Impact. The City of Chino is expected to have sufficient water supplies to service the Project. The Project would not exceed the City's available supply of water during normal years, single-dry years, or multiple-dry years.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold e: Less-than-Significant Impact. The IEUA would provide wastewater treatment services to the Project site via RP-5. This facility has adequate capacity to service the Project and no new or expanded facilities would be needed.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f: Less-than-Significant Impact. There is adequate capacity available at the El Sobrante Landfill to accept the Project's solid waste during both construction and long-term operation. The proposed Project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure to handle the waste.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold g: Less-than-Significant Impact. The Project would comply with all applicable federal, State, and local statutes and regulations related to related to the management and reduction of solid waste and pertaining to waste disposal, reduction, and recycling.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

1.0 INTRODUCTION

This Environmental Impact Report (EIR) is an informational document that represents the independent judgment of the City of Chino, acting as the Lead Agency pursuant to the California Environmental Quality Act (CEQA), and evaluates the physical environmental effects that could result from constructing and operating the proposed Chino Parcel Delivery Facility project (hereafter, the "Project"). To implement the Project, the Project Applicant has requested the City of Chino's approval of a General Plan Amendment (PL16-0638), Specific Plan Amendment (PL16-0639), Master Site Approval (PL16-0719), Site Approval (PL16-0720), Special Conditional Use Permit (PL16-0721), and other related discretionary and administrative actions that are required to construct and operate the Project described in this EIR.

1.1 PURPOSES OF CEQA AND THIS EIR

As stated by the California Environmental Quality Act (CEQA) Guidelines Section (§) 15002(a), the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed [government actions (including the discretionary approval of private development projects)];
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why the governmental agency approved the Project in the manner the agency chose (if the project involves significant environmental effects).

As the first step in the CEQA compliance process, the City of Chino prepared an Initial Study pursuant to CEQA Guidelines § 15063. The Initial Study determined that the Project has the *potential* to cause or contribute to significant environmental effects, and a Project EIR, as defined by CEQA Guidelines § 15161, would be required. Accordingly, this document serves as a Project EIR. As required by CEQA Guidelines § 15161, this Project EIR shall "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation." Also, in conformance with CEQA Guidelines § 15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 SUMMARY OF THE PROJECT EVALUATION BY THIS EIR

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the proposed Chino Parcel Delivery Facility and all of the activities associated with its implementation (including planning, construction, and ongoing operation). The Project would be developed on an approximately 74.4-acre property located south of Merrill Avenue and west of Flight Avenue in the City of Chino, San Bernardino County, California, and would require the demolition of the property's existing residential and agricultural/dairy buildings and the construction and operation of a parcel delivery facility. The Project also includes associated site improvements, including drive aisles, landscaping, utility infrastructure, water quality basins, exterior lighting, and signage.

The Project Applicant has filed applications for the following discretionary actions, which are under consideration by the City of Chino:

- **General Plan Amendment (GPA) PL16-0638** proposes to amend the City of Chino General Plan Map to change the land use designation for the Project site from "Public" to "Light Industrial."
- **Specific Plan Amendment (SPA) PL16-0639** proposes to amend The Preserve Specific Plan to change the land use designation for the Project site from "Public" to "Light Industrial."
- **Master Site Approval (MSA) PL16-0719 and Site Approval (SA) PL16-0720** describes and illustrates the key features and characteristics of the proposed parcel delivery facility, including conceptual site layout, vehicular and pedestrian circulation networks, architectural character, and landscape design. The Project Applicant would develop a 476,285-s.f. sorting/distribution building and four (4) ancillary buildings, including: a 8,973-s.f. gateway building, a 17,480-s.f. maintenance building, and two (2) 220-s.f. guardhouses.
- **Special Conditional Use Permit (SCUP) PL16-0721** is proposed to ensure the Project conforms with the City of Chino Municipal Code, which requires the approval of a SCUP for buildings that exceed 50,000 s.f. of floor area and/or have loading doors facing a public street.

1.3 PRIOR CEQA REVIEW

The Project site is located within the geographical limits of the City of Chino and is covered by the City's General Plan. The General Plan was approved by the City of Chino in 2010. The General Plan establishes the foundation of the City's land use and development policies through the year 2025. The City's General Plan was the subject of a previous environmental review under CEQA; a Program EIR for the City's General Plan was certified by the City of Chino in 2010 (State Clearinghouse Number 2008091064). The Program EIR contains information relevant to the Project site. Thus, the Program EIR for the City's General Plan is herein incorporated by reference pursuant to CEQA Guidelines § 15150 and is available for public review at the City of Chino Development Services Department, Planning Division, 13220 Central Avenue, Chino, CA 91710.

Additionally, the entire Project site is located within the geographical limits of The Preserve Specific Plan. The Preserve Specific Plan was approved by the City of Chino in 2003 and guides development within an approximately 5,435-acre portion of the City. Implementation of The Preserve Specific Plan was the subject of previous environmental review under CEQA as part of a Program EIR that was certified by the City of Chino (State Clearinghouse Number 2000121036). The Program EIR contains information relevant to the Project site. Thus, the Program EIR for The Preserve Specific Plan is herein incorporated by reference pursuant to CEQA Guidelines § 15150 and is available for public review at the City of Chino Development Services Department, Planning Division,13220 Central Avenue, Chino, CA 91710.

1.4 LEGAL AUTHORITY

This EIR has been prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code § 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, § 15000 *et seq.*).

Pursuant to CEQA § 21067 and CEQA Guidelines Article 4 and § 15367, the City of Chino is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the Lead Agency and before taking action to approve the Project, the City of Chino has the obligation to: (1) ensure that this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the City of Chino's independent judgment; (4) ensure that all significant effects on the environment are eliminated or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§ 15090 through 15093).

Pursuant to CEQA Guidelines §§ 15040 through 15043, and upon completion of the CEQA review process, the City of Chino will have the legal authority to do any of the following:

- Approve the Project;
- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;
- Deny approval of the Project, if necessary, in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or
- Approve the Project even through the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed General Plan Amendment (PL16-0638), amendment to The Preserve Specific Plan (PL16-0639), Master Site Approval (PL16-0719), Site Approval (PL16-0720), Special Conditional Use Permit (PL16-0721), and all other governmental discretionary and administrative actions related to the Project.

1.5 Responsible and Trustee Agencies

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

For the proposed Project, the Santa Ana Regional Water Quality Control Board (RWQCB) is identified as a Trustee Agency that is responsible for the protection of California's water resources and water quality. The Santa Ana RWQCB is responsible for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit to ensure that during and after Project construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality. In addition, the California Department of Fish and Wildlife (CDFW) is identified as a Trustee Agency that is responsible for the protection of California's fish, wildlife, plant, and native habitats. Consultation with the CDFW may be required for pre-construction burrowing owl surveys. There are no other agencies that are identified as Responsible or Trustee Agencies for the proposed Project.

1.6 EIR Scope, Format, and Content

1.6.1 EIR Scope

An Initial Study was prepared by the City of Chino to preliminarily identify the environmental issue areas that may be adversely impacted by the Project. Following completion of the Initial Study, the City filed a Notice of Preparation (NOP) with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to Responsible Agencies, Trustee Agencies, and other interested parties on September 23, 2017, for a 31-day public review period.[1] The NOP was distributed for public review to solicit responses to help the City identify the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. In addition, a publicly-noticed EIR Scoping Meeting was held at the City of Chino Community Development

[1] On December 24, 2016, the City of Chino distributed an Initial Study and NOP to the State Clearinghouse, interested public agencies, and members of the public for a previous iteration of the Project. The comment period for the NOP issued on December 24, 2016, closed on January 23, 2017. Shortly thereafter, the Project design underwent substantial revision, including a reduction in size by almost 50 percent (from 139.2 acres to 74.4 acres). Due to the substantial revisions made to the Project's description, all information and comments associated with the Initial Study and NOP released on December 24, 2016, are superseded by the Initial Study and NOP released on September 23, 2017, and the comments received thereto.

Conference Room on October 11, 2017, which provided members of the general public an additional opportunity to comment on the scope of environmental issues to be addressed in this EIR.

Based on the information contained in the Initial Study and in consideration of all comments received by the City on the NOP and during the Scoping Meeting, this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources & Tribal Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Transportation and Traffic
- Utilities and Service Systems

The Initial Study, NOP, public review distribution list, and written comments received by the City during the NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP and during the Scoping Meeting are summarized below in Table 1-1, *Summary of NOP and Scoping Meeting Comments*. The purpose of this table is to present the primary environmental issues of concern raised by public agencies and the general public during the NOP review period and Scoping Meeting. Table 1-1 is not intended to list every comment received by the City during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP are addressed in this EIR.

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commenter	Date	Summary of Comment Letter	Location in EIR Where Comment is Addressed
State Agencies			
Governor's Office of Planning and Research (OPR)	September 22, 2017	• Acknowledgment of receipt of NOP and confirming distribution of the NOP to State Agencies for review and comment.	→ Informational comment; no response necessary.
California Native American Heritage Commission (NAHC)	September 29, 2017	• Request that mitigation measures be included for identification and evaluation of archaeological resources and tribal cultural resources. • Request coordination and consultation with NAHC and local Native American contacts pursuant to Senate Bill 18 (SB 18) and Assembly Bill (AB 52).	→ Subsection 4.5, *Cultural Resources & Tribal Cultural Resources*

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commenter	Date	Summary of Comment Letter	Location in EIR Where Comment is Addressed
California Department of Fish and Wildlife (CDFW)	October 23, 2017	• Request that the EIR disclose impacts to biological resources. • Request the EIR includes a project alternative that avoids or minimizes impacts to sensitive biological resources.	→ Subsection 4.4, *Biological Resources* → *Technical Appendix D*
California Department of Conservation (DOC), Division of Land Resource Protection	October 9, 2017	• Request that the EIR address direct and indirect farmland conversion, impacts to current and future agricultural operations in the vicinity, and cumulative impacts to agricultural lands. • Request that the EIR include feasible mitigation measures to avoid or minimize the Project's potential impacts to agricultural resources.	→ Subsection 4.2, *Agricultural and Forestry Resources* → *Technical Appendix B*
California Department of Transportation, District 8 (Caltrans)	September 29, 2017	• Request that all State facilities within a 5-mile radius of the Project site be included and analyzed in the Project's TIA.	→ Subsection 4.14, *Transportation and Traffic* → *Technical Appendix K*
Regional Agencies			
South Coast Air Quality Management District (SCAQMD)	October 17, 2017	• Request that the CalEEMod land use emissions software be used for the Project's air quality analysis. • Request that Project-related air quality impacts be identified and quantified against the SCAQMD's regional and localized significant thresholds. • Request that the EIR include feasible mitigation measures to avoid or minimize the Project's potential impacts to air quality.	→ Subsection 4.3, *Air Quality* → *Technical Appendix C1*
Local Agencies			
San Bernardino County Public Works Department	October 23, 2017	• Request that the EIR analyze potential impacts related to the burrowing owl. • Request that the EIR analyze potential impacts related to the Project site's location within FEMA Zone X-unshaded.	→ Subsection 4.4, *Biological Resources* → *Technical Appendix D* → Subsection 4.8, *Hazards and Hazardous Materials* → *Technical Appendix H1*
City of Ontario Planning Department	October 18, 2017	• Request that the TIA utilize a focused trip generation analysis and include analysis of cumulative projects within the City of Ontario. • Request that the TIA analyze the Project's contribution to several roadway intersections that are partially or wholly located within the City of Ontario.	→ Subsection 4.14, *Transportation and Traffic* → *Technical Appendix K*

Table 1-1 Summary of NOP and Scoping Meeting Comments

Commenter	Date	Summary of Comment Letter	Location in EIR Where Comment is Addressed
City of Ontario Planning Department (cont.)		• Request that the TIA provide a fair-share calculation of mitigation costs. • Request that the EIR provide analysis of the feasibility constructability for all mitigation measures that are identified in the City of Ontario.	
West Valley Mosquito and Vector Control District (WVMVCD)	October 6, 2017	• Request that the EIR analyze the Project's impacts as they relate to vector species and vector control.	→ Subsection 4.9, *Hydrology and Water Quality* → Subsection 4.16, *Utilities and Service Systems* → Section 5.0, *Other CEQA Considerations*
Private Organizations and Individuals			
Law Offices of Abigail Smith (on behalf of the Sierra Club, San Gorgonio Chapter – Los Serranos Group)	October 23, 2017	• Request that the EIR disclose that properties south of the Chino Airport are part of the Preserve Specific Plan and are planned for residential uses. • Request that the EIR evaluate and include mitigation for potential impacts to "Prime Farmland." • Request that the EIR evaluate potential impacts related to diesel emissions, greenhouse gas emissions, noise, and traffic. • Request that the EIR evaluate the Project's consistency with the adopted local and regional land use plans.	→ Section 2.0, *Environmental Setting* → Subsection 4.2, *Agricultural and Forestry Resources* → Subsection 4.3, *Air Quality* → Subsection 4.7, *Greenhouse Gas Emissions* → Subsection 4.11, *Noise* → Subsection 4.14, *Transportation and Traffic* → *Technical Appendices C1, G, J, and K* → Subsection 4.10, *Land Use and Planning*
Greg Duncan	September 23, 2017	• Comment cites concerns with the Project as they relate to traffic, air quality, and noise.	→ Subsection 4.3, *Air Quality* → Subsection 4.11, *Noise* → Subsection 4.14, *Transportation and Traffic* → *Technical Appendices C1, J, and K*

1.6.2 EIR Format and Content

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, § 21000 *et. seq.* and California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA-Required Topics,* provides a quick reference guide for locating the CEQA-required sections within this document.

Table 1-2 Location of CEQA-Required Topics

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

In summary, the content and format of this EIR is as follows:

- **Section S.0, Executive Summary**, provides an overview of the EIR document and CEQA process. The Project, including its objectives, is described, and the location and regional setting of the Project site is documented. In addition, the Executive Summary discloses that there are no potential areas of controversy related to the Project and identifies the potential alternatives to the proposed Project as required by CEQA. Finally, the Executive Summary provides a summary of the Project's impacts, mitigation measures, and conclusions, in a table that forms the basis of the EIR's Mitigation, Monitoring and Reporting Program.

- **Section 1.0, Introduction**, provides introductory information about the CEQA process and the responsibilities of the City of Chino, serving as the Lead Agency for this EIR, a brief description of the Project, the purpose of the EIR, and an overview of the EIR format.

- **Section 2.0, Environmental Setting**, describes the Project site's setting, including descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the approximate date this EIR's NOP was released for public review (September 23, 2017).

- **Section 3.0, Project Description**, serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project, including the summary requirements pursuant to CEQA Guidelines § 15123. This section provides a detailed description of the Project, including its purpose, main objectives, design features, construction characteristics, and operational characteristics expected over the Project's lifetime, should development occur on the property. In addition, the discretionary actions required of the City of Chino and other government agencies to implement the Project are discussed.

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

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

The analyses in Section 4.0 are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and are cited in Section 7.0, *References*. Where the analysis demonstrates that a physical adverse environmental effect may or would occur without undue speculation, feasible mitigation measures are recommended to reduce or avoid the significant effect. Mitigation measures must be fully enforceable, have an essential nexus to a legitimate governmental interest, and be "roughly proportional" to the impacts of the Project. The discussion then indicates whether the identified mitigation measures would reduce impacts to below a level of significance. In most cases, implementation of the mitigation measures would reduce the adverse environmental impacts to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a Statement of Overriding Considerations would need to be adopted by the City of Chino pursuant to CEQA Guidelines § 15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, an analysis of the Project's energy consumption, as well as potential growth-inducing impacts of the proposed Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not be significant during preparation of this EIR.

- **Section 6.0, Project Alternatives**, describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. A range of three (3) alternatives is presented in Section 6.0.

- **Section 7.0, References**, cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

1.6.3 Incorporation by Reference

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

This EIR relies on a number of Project-specific technical appendices that are bound separately as Technical Appendices. The *Technical Appendices* are available for review at the City of Chino Development Services Department, Planning Division, 13220 Central Avenue, Chino, CA 91710, during the City's regular business hours or can be requested in electronic form by contacting the City Planning Division, during the City's regular business hours. The individual technical studies, reports, and supporting documentation that comprise the *Technical Appendices* are as follows:

A: Initial Study, Notice of Preparation, and Written Comments on the NOP
B: Agricultural Resources Assessment
C1: Air Quality Impact Analysis
C2: Health Risk Assessment
C3: Supplemental Air Quality Assessment
D: Biological Technical Report
E1: Cultural Resources Assessment
E2: Paleontological Resource Assessment
F: Geotechnical Investigation
G: Greenhouse Gas Impact Analysis
H1: Phase I ESA
H2: Supplemental ESA Letter
I1: Preliminary Hydrology Report
I2: Water Quality Management Plan
J: Noise Impact Analysis
K: Traffic Impact Analysis
L: Water Supply Assessment
M: Energy Analysis

1.6.4 Revised CEQA Guidelines

In November 2018, the California Natural Resources Agency finalized updates to the CEQA Guidelines. The changes were approved by the Office of Administrative Law on December 28, 2018. The revisions to the CEQA Guidelines implemented legislative changes, clarified rules that govern the CEQA procedural process, and limited duplicative analysis. The revisions also resulted in re-organization and consolidation of the environmental checklist offered by CEQA Guidelines Appendix G, which forms the basis of the environmental analyses presented in this EIR.

Prior to release of this EIR for public review, the substantive content of the revised CEQA Guidelines was reviewed to ensure that this EIR complies with the revised CEQA Guidelines. Of note, Appendix G of the revised CEQA Guidelines suggests presenting an analysis of Wildfire and Energy as independent analysis sections, whereas this EIR addresses these topics but not independently (refer to EIR Subsections 4.8 and 5.4 for analysis related to Wildfire and Energy, respectively). Regardless of format and location of analyses in this EIR, the substantive content required by the CEQA Guidelines as revised is included herein.

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL SETTING AND LOCATION

The approximately 74.4-acre Project site is located in the City of Chino, in southwestern San Bernardino County, California. The City of Chino is located south of the City of Ontario, west of the City of Eastvale, and east of the City of Chino Hills. The Project site is located approximately 4.0 miles west of Interstate 15 (I-15), approximately 3.3 miles south of State Route 60 (SR-60), and approximately 3.2 miles northeast of State Route 71 (SR-71). The site's location in a regional context is shown on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description.*

The Project site is located in an urbanizing area of southern California commonly referred to as the "Inland Empire." The Inland Empire is an approximate 28,000 square-mile region comprising San Bernardino County, Riverside County, and the eastern tip of Los Angeles County. According to U.S. Census data, the estimated 2016 population of San Bernardino County was 2,140,096 (USCB, 2016). Southern California Association of Governments (SCAG) forecast models predict that the population of San Bernardino County will grow to approximately 2.73 million persons by the year 2040 (SCAG, 2016).

2.2 LOCAL SETTING AND LOCATION

The Project site is located in the southern portion of the City of Chino, in an area known as "The Preserve." In 2003, the City of Chino adopted a master plan (The Preserve Specific Plan) to guide development of the 5,435 acres within The Preserve. Land uses within The Preserve were historically dominated by agricultural and dairy land uses; however, the area is transitioning to more urban land uses as prescribed by The Preserve Specific Plan. The Preserve Specific Plan designates the northern portion of its planning area (i.e., the areas surrounding the Chino Airport) for industrial and business park land uses, the central portion of its planning area for a variety of residential land uses, and the southern central portion of its planning area for open space land uses. A majority of the residential development within The Preserve occurred prior to The Great Recession during the late 2000s and early 2010s, although the pace of residential development in The Preserve has increased over the last few years, with several master-planned communities actively under construction as of the writing of this EIR. The pace of industrial development within The Preserve was very slow until approximately 2014; since 2014, one large-scale industrial project has been constructed within The Preserve and several approved large-scale industrial projects are under – or pending – construction.

The Project site is located south of Merrill Avenue and west of Flight Avenue. Merrill Avenue serves as the boundary between the City of Chino and City of Ontario. The Project site includes Assessor Parcel Numbers (APNs) 1054-391-02 and -03. Figure 3-2, *Vicinity Map*, in EIR Section 3.0, *Project Description*, identifies the location of the Project site.

2.3 SURROUNDING LAND USES AND DEVELOPMENT

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

North: Property to the north of the Project site (north of Merrill Avenue) is located within the City of Ontario and is occupied by agricultural dairy operations and fallow fields. This area is designated by the Ontario General Plan as "Business Park" and is expected to be developed with employment-generating land uses in the future.

South: Property located south of the Project site is occupied by the Chino Airport.

West: Property located west of the Project site is occupied by agricultural fields and the Chino Airport.

East: Property located immediately east of the Project site (east of Flight Avenue) is developed as an industrial park called Watson Industrial Park Chino. The area between Flight Avenue and Backer Avenue is developed with three (3) warehouse buildings. The property located east of Baker Avenue is partially constructed and partially under construction with eight (8) warehouse buildings collectively containing up to 3,872,000 s.f. of industrial building space.

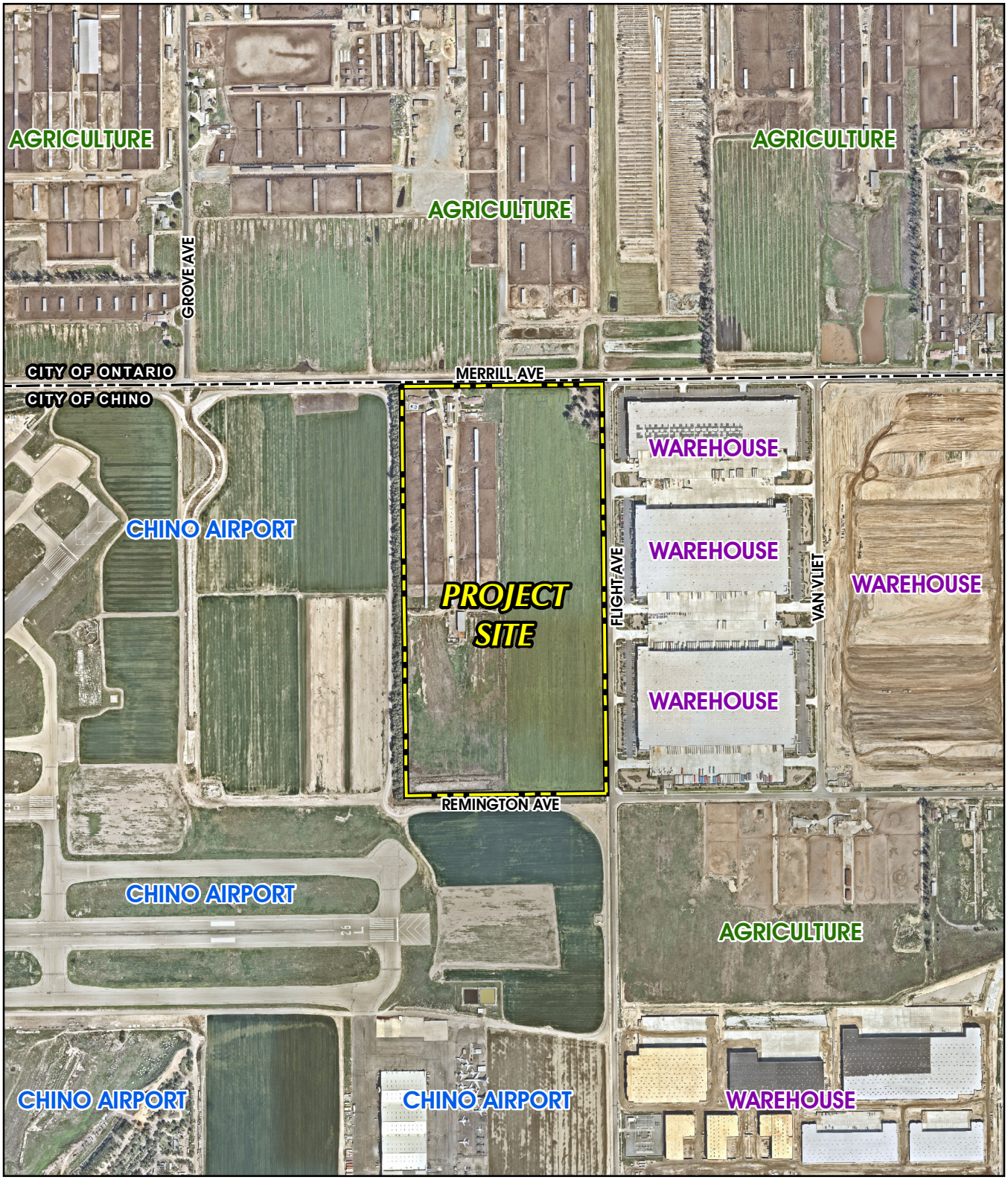
2.4 PLANNING CONTEXT

2.4.1 CITY OF CHINO GENERAL PLAN

The City of Chino's prevailing planning document is its General Plan, dated July 2010. As depicted on Figure 2-2, *Existing General Plan Land Use Designation*, the City's General Plan designates the Project site for "Public" land uses. The "Public" land use designation is intended for major public uses or institutions, including civic centers, hospital, post offices, fire stations, and the airport (Chino, 2010a, LU-16). At the time the General Plan was published in 2010, the Project site was owned by the County of San Bernardino. The County subsequently identified the property as surplus and sold the Project site to a private party. Regardless, the site's General Plan designation remained "Public."

2.4.2 THE PRESERVE SPECIFIC PLAN

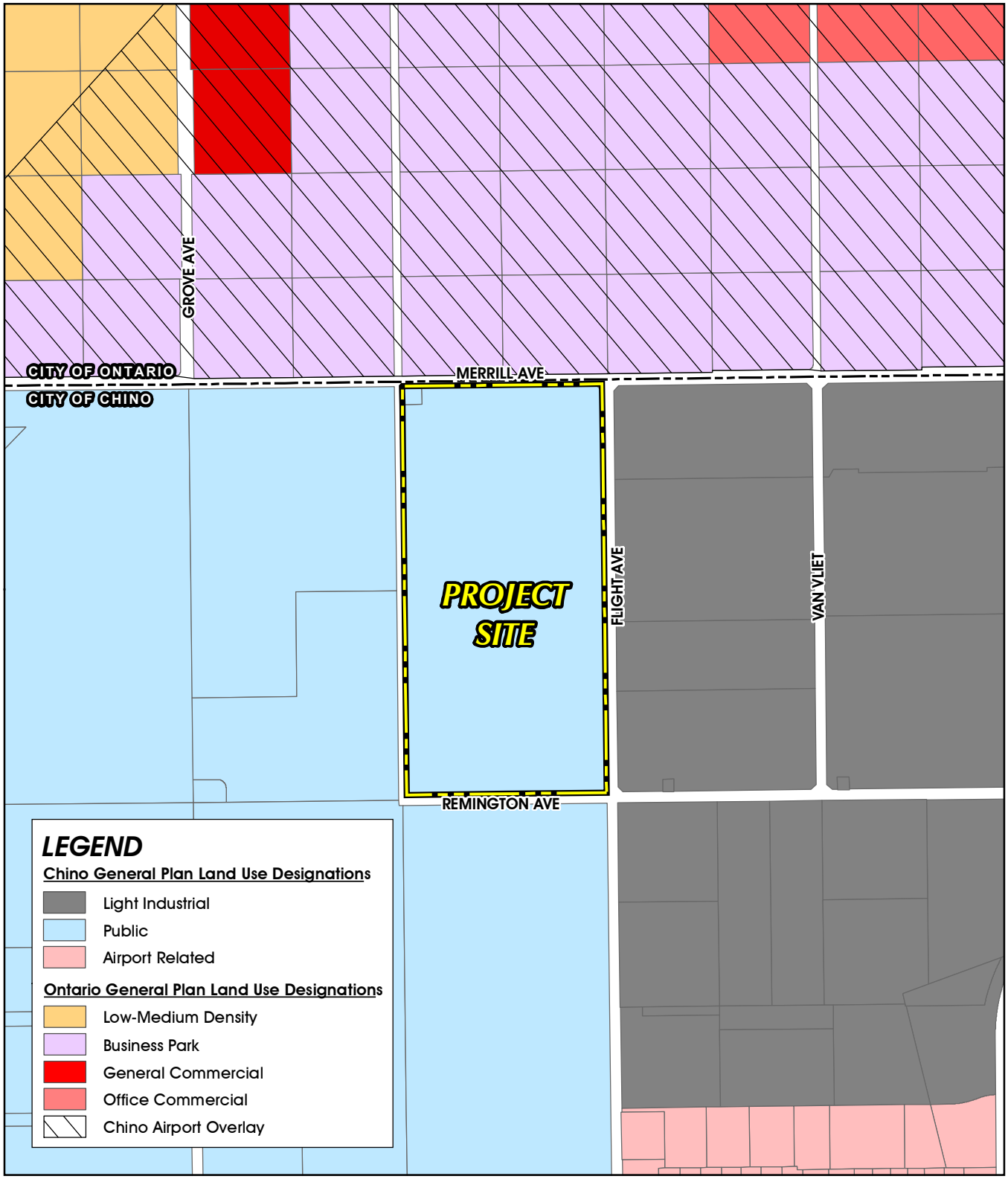
The Project site is located within the geographic boundaries of The Preserve Specific Plan. The Preserve Specific Plan establishes specific zoning designations and development standards for private development projects located within its geographic boundaries. As shown on Figure 2-3, *The Preserve Specific Plan Land Use Map*, the Specific Plan applies the "Public Facilities (PF)" designation to the Project site. The PF land use designation is intended to provide for local- and regional-serving public and quasi-public facilities and services, such as museums, libraries, places of worship, public safety facilities, utility stations, and transportation facilities (Chino, 2016a, Section V, p. 82).



Source(s): ESRI, Nearmap Aerial (2018), SB County (2017)

Figure 2-1

SURROUNDING LAND USES AND DEVELOPMENT

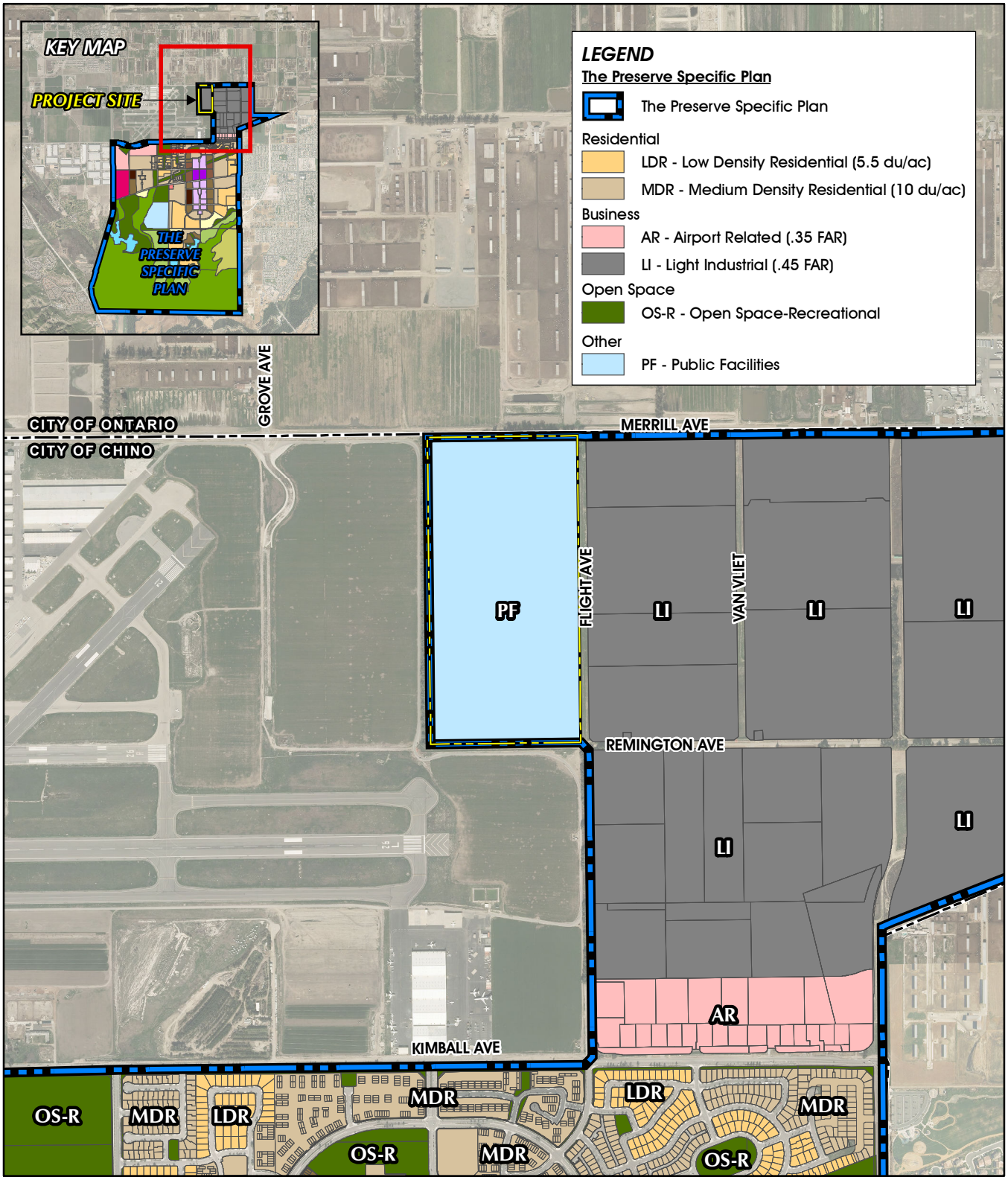


Source(s): ESRI, City of Chino (2017), City of Ontario (2018), SB County (2017)

Figure 2-2

0 225 450 900 Feet

EXISTING GENERAL PLAN LAND USE DESIGNATION



Source(s): ESRI, City of Chino (2016), Nearnap Aerial (2018), SB County (2017)

Figure 2-3

THE PRESERVE SPECIFIC PLAN LAND USE MAP

The Preserve Specific Plan also applies the Chino Airport Overlay (CAO) zoning overlay to the Project site (Chino, 2016a, Figure 9A). The CAO is intended to ensure the viability of airport operations at the Chino Airport, and to protect the health, safety, and welfare of the residents of Chino. Any proposed development within the CAO must comply with City Zoning Ordinance Section 20.09.050, *Airport Overlay District*, (Chino, 2016a, Section V, pp. 103-104).

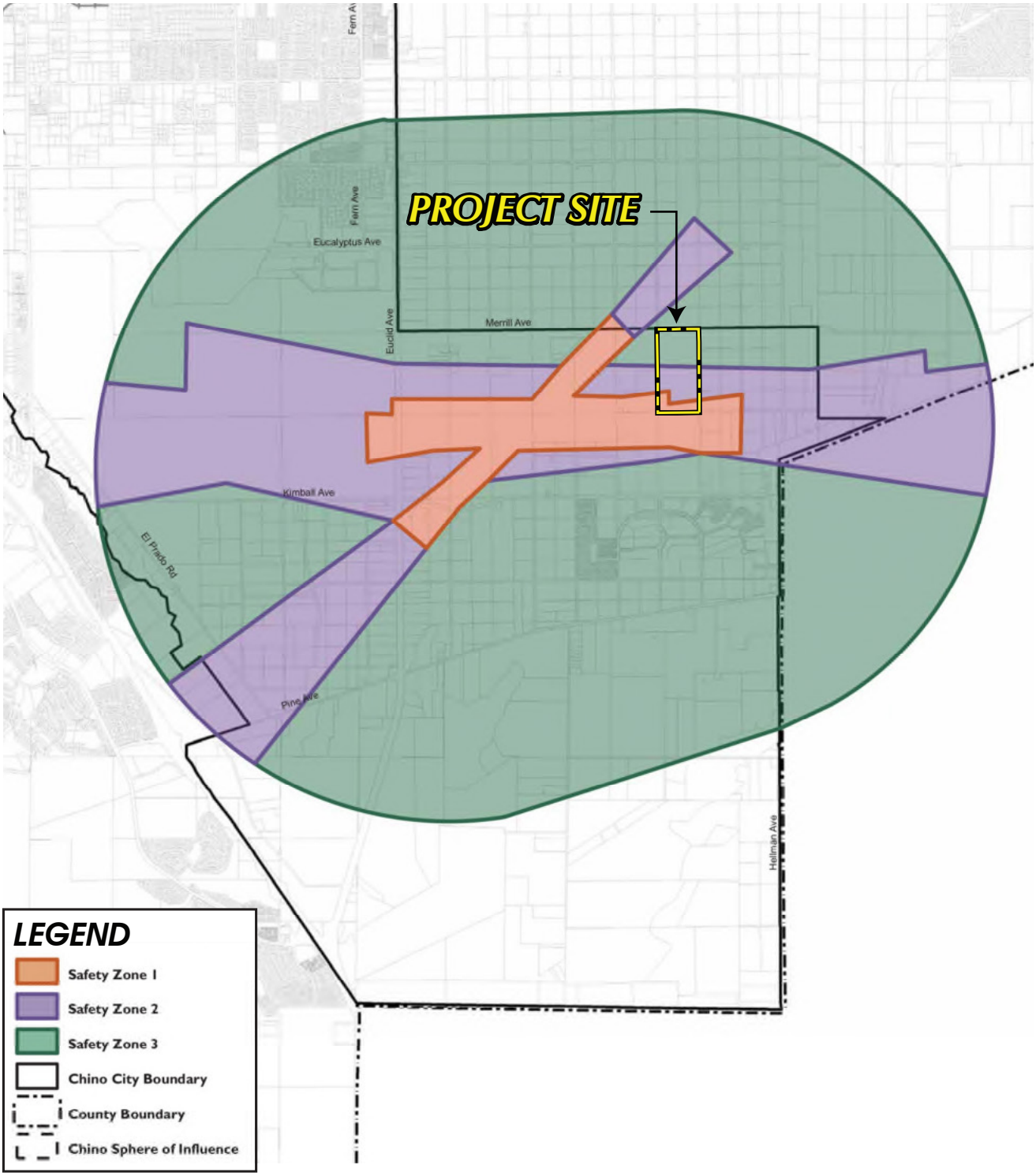
2.4.3 ZONING

The development regulations and design standards contained within The Preserve Specific Plan supersede the zoning standards contained in the City's Zoning Ordinance. Refer to The Preserve Specific Plan Section V, *Development Plan*, and Section VI, *Design Guidelines*, for more information on the specific development regulations and design standards that apply to the Project site. The Preserve Specific Plan is herein incorporated by reference pursuant to CEQA Guidelines § 15150 and is available for review at the City of Chino Community Development Department, Planning Division located at 13220 Central Avenue, Chino, CA 91710.

2.4.4 CHINO AIRPORT LAND USE COMPATIBILITY PLANS

The Project site is located approximately 0.10-mile east and north of the nearest runway at the Chino Airport. At present, there is no valid Airport Land Use Compatibility Plan (ALUCP) for the Chino Airport, as the most recent ALUCP for the Chino Airport (adopted in 1991) does not reflect the Airport's current Master Plan (adopted in 2006). Regardless, based on the 1991 ALUCP, the City of Chino General Plan establishes safety zones for areas within the Chino Airport AIA. As shown on Figure 2-4, *Chino Airport Safety Zones*, the southern portion of the Project site is located within Airport Safety Zones I and II, and the remainder of the property is located within Airport Safety Zone III. Within Safety Zone I, the General Plan and the 1991 ALUCP prohibit residential and industrial structures while discouraging residential development and recommending that non-residential uses in enclosed structures be limited to no more than 25 persons per acre within Safety Zone II. Within Safety Zone III, the General Plan and the 1991 ALUCP recommend no restriction on residential or other land uses. (Chino, 2010a, Figure LU-4; ALUC, 1991, Figure III-7)

Due to the proximity of the Chino Airport to communities within Riverside County, the Riverside County Airport Land Use Commission (ALUC) adopted an ALUCP for the Chino Airport in 2008. According to the Riverside County ALUC's ALUCP for the Chino Airport, the majority Project site is located within Compatibility Zones "C" and "D," while a portion of the site falls within Compatibility Zone "A." Very tall buildings and noise sensitive land uses are prohibited within Compatibility Zones C and D; however, industrial land uses are generally permissible within these Compatibility Zones. Structures, except ones with location set by aeronautical function, are not permitted in Compatibility Zone "A." (RCALUC, 2008, Map CH-1) This information is presented for informational purposes only, as the Project site is located in San Bernardino County and the Riverside County ALUC has no jurisdictional authority over the Project site or the proposed Project evaluated herein.



Source(s): City of Chino General Plan (Feb 2015)

Figure 2-4

NOT TO SCALE

CHINO AIRPORT SAFETY ZONES

2.4.5 SCAG Regional Transportation Plan / Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. (SCAG, 2017a)

SCAG's *2016-2040 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS)* develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. The *RTP/SCS* provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The Subregional Sustainable Communities Strategies identifies the Project site as being located in an area with a "Standard Suburban" land use pattern, which is defined as auto-oriented development with a minimal mix of land uses, and assumes this land use pattern will continue until at least the year 2040. (SCAG, 2016, p. 64)

2.5 Existing Physical Site Conditions

CEQA Guidelines § 15125(a)(1) recommends that the physical environmental condition as it existed at the time the EIR's NOP was released for public review be used as the comparative baseline for the EIR. The NOP for this EIR was released for public review on September 23, 2017, and the following subsections provide a description of the Project site's physical environmental condition ("existing conditions") as of that approximate date. More information regarding the Project's site's environmental setting is provided in the specific subsections of EIR Section 4.0, *Environmental Analysis*.

In addition to the approximately 74.4-acre Project site, the proposed Project's off-site impact area is considered in this EIR, and includes land that abuts the Project site within the public rights-of-way for Merrill Avenue (on the north), Flight Avenue (on the east), and Comet Avenue (on the west), as well as land within the Remington Avenue right-of-way that abuts the southwest corner of the Project site and extends west. Under existing conditions, the portion of the Merrill Avenue right-of-way located within the Project's off-site impact area is partially developed as a paved street and features a small windrow of tamarisk trees; the portion of the Flight Avenue right-of-way located within the Project's off-site impact area is developed as a paved street with a curb and gutter; the portion of the Comet Avenue right-of-way located within the Project's off-site impact area is undeveloped; and the off-site impact area within the Remington Avenue right-of-way and the area extending to the west is disturbed and used as a dirt road. (GLA, 2017, pp. 2, 32)

2.5.1 Land Use

As shown on Figure 2-5, *Aerial Photograph*, the Project site is largely disturbed and primarily used for non-conforming dairy and agricultural operations. The western portion of the site is occupied by two residences, two dairy operations that house approximately 700 head of cattle, several agricultural support buildings (e.g., cattle pens and structures for shelter, feed, and water), and land used for agricultural operations[1]. The eastern portion of the site is primarily occupied by cultivated fields used to grow cattle feed.

As required by CEQA Guidelines Section 15125(d), the environmental setting should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans. The Project Applicant proposes to develop the approximately 74.4-acre property to accommodate a parcel delivery use. The principal discretionary actions required of the City of Chino to implement the Project are described in detail in Section 3.0, *Project Description*, and are listed in Table 3-2, *Matrix of Project Approvals/Permits*. As noted, the Project Applicant proposes to change the land use and zoning designations applied to the property to "Light Industrial;" as such, the proposed Project is not consistent with the existing General Plan designation of "Public" or The Preserve Specific Plan (zoning) designation of "Public". The potential environmental effects associated with the land use designation inconsistency are evaluated in Section 4.0, *Environmental Analysis*, of this EIR.

2.5.2 Aesthetics and Topographic Features

The Project site is relatively flat and slopes gently from north to south, with elevations ranging from approximately 650 feet above mean sea level (amsl) in the northern portion of the site to approximately 640 feet amsl in the southern portion of the Project site. The topographic relief of the Project site is approximately 10 feet. Figure 3-2, *USGS Topographic Map*, in EIR Section 3.0, *Project Description*, depicts the Project site's existing topographic conditions. Ornamental landscaping, including trees and groundcover, are located near the residences along the northern boundary of the Project site and mature trees are located in the northeastern corner of the Project site. Additionally, a row of windbreak trees is located along the western boundary of the Project site and extends from the northern boundary of the site (abutting Merrill Avenue) to the southern boundary of the site. There are no rock outcroppings or other unique topographic or aesthetic features present on the property.

2.5.3 Air Quality and Climate

The Project site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, the San Jacinto Mountains to the north and east, and San Diego County to the south. The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into

[1] Since the NOP for this EIR was released for public review on September 23, 2017, the dairy located on the western portion of the Project site ceased operation. As explained on the preceding page, the analysis throughout this EIR assumes the dairy is active because the dairy was operational on the Project site at the time the site's "existing conditions" were established for purposes of this EIR, which is the approximate date of the publication of the NOP.

Source(s): ESRI, Nearmap Aerial (2018), SB County (2017)

Figure 2-5

AERIAL PHOTOGRAPH

conformity with federal and State air quality standards. As documented in the Project's air quality report (*Technical Appendix C1* to this EIR), although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Ana[s]" each year.

At the regional level, air quality in the SCAB has improved over the past several decades, however, the SCAB is currently not in attainment of State and/or federal standards established for Ozone (O_3) one-hour and eight-hour, and particulate matter (PM_{10} and $PM_{2.5}$) (CARB, 2015). Numerous scientific studies have demonstrated that air pollution is impactful to human health. The SCAQMD predicts that the excess carcinogenic risk in the Project area due to air pollution and toxic air contaminants is between approximately 857.83 and 973.08 in one million persons (SCAQMD, 2015a).

Refer to EIR Subsections 4.3, *Air Quality*, and 4.7, *Greenhouse Gas Emissions*, for a more detailed discussion of the Project's site existing air quality and climate setting.

2.5.4 Geology

Regionally, the Project site is located in the Peninsular Ranges geomorphic province, a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded to the east by the Colorado Desert. The Peninsular Ranges province is composed of plutonic and metamorphic rock, lesser amounts of Tertiary Volcanic and sedimentary rock, and Quaternary drainage in-fills and sedimentary veneers.

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The Project site is located in a seismically active region. No known active or potentially active faults exist on or near the Project site nor is the site situated within an "Alquist-Priolo" Earthquake Fault Zone (SCG, 2018, p. 11). The nearest known fault to the Project site is the Chino-Central Avenue Fault, which occurs approximately 3.1 miles southwest of the Project site (Chino, 2010b, Figure 4.6-1). Similar to other properties throughout southern California, the Project site is located within a seismically active region and is subject to ground shaking during seismic events.

The Project site is underlain by manure/organic soil, topsoil, artificial fill, and alluvium. The central portion of the Project site – which corresponds to the cattle pens for the on-site dairy – contains manure at the ground surface that extends to depths 11 inches below grade. Topsoil was encountered during geotechnical investigations at the ground surface to six (6) inches below grade across the portions of the site not occupied by the existing dairy. Artificial fill was encountered below manure/organic soils and top soils, extending to depths up to five (5) feet below the existing ground surface. Native alluvium soils were found across the Project site at depths as shallow as two and a half (2.5) to three (3) feet below the existing ground surface. (SCG, 2018, pp. 7-8)

2.5.5 HYDROLOGY

The Project site is located in the Santa Ana River watershed, which drains an approximately 2,650-square-mile area and is the principal surface flow water body within the region. The Santa Ana River starts in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The Project site and vicinity are within the purview of the Santa Ana Regional Water Quality Control Board (RWQCB). The Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* is the governing water quality plan for the region, which sets forth goals and objectives for protecting water quality within the region (Santa Ana RWQCB, 2016, p. 1-1).

The Project site is divided into two drainage areas under existing conditions: the western drainage area comprises the existing dairy property and the eastern drainage area comprises the existing agricultural fields. The western drainage area receives stormwater runoff from Merrill Avenue; runoff travels through the site to an existing agricultural wastewater pond along the southern Project site boundary (north of the Remington Avenue right-of-way). The eastern drainage area also receives stormwater runoff from Merrill Avenue; runoff travels through the site in a southwesterly direction. Flight Avenue is a high point that precludes runoff from entering the Project site from the east and an existing drainage ditch along the northern side of Merrill Avenue captures runoff from areas within the City of Ontario located north of Merrill Avenue; therefore, the Project site is not tributary to areas to the north or east. (D&D, 2018a, p. 3)

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. FIRM No. 06071C9375H, dated August 28, 2008, the Project site is located within FEMA Flood Zone X (Shaded). Flood Zone X (Shaded) is correlated with areas of moderate flood hazard (greater than 0.2-percent annual-chance), usually consisting of the area between the limits of the 100-year and 500-year floods. Zone X (Shaded) also is used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one (1) foot or drainage areas less than one (1) square mile. Thus, the Project site is not located in a 100-year floodplain. (FEMA, 2008)

2.5.6 NOISE

Primary sources of noise in the Project vicinity include vehicle noise and aircraft noise. Urban Crossroads, Inc. collected 24-hour noise measurements at nine (9) locations in the Project study area on February 15 and 21, 2018, to determine the baseline for the existing noise environment. Hourly noise levels in the area were measured ranging from 53.1 equivalent level decibels (dBA Leq) to 74.3 dBA Leq which correlates to a Community Noise Level (CNEL) ranging from 61.9 CNEL to 79.2 CNEL. (Urban Crossroads, 2018d, Table 5-1)

Refer to EIR Subsection 4.11, *Noise*, for a more detailed discussion of the Project's site existing noise setting.

2.5.7 TRANSPORTATION

The Project site is located immediately south of Merrill Avenue, immediately west of Flight Avenue, approximately 0.45-mile north of Kimball Avenue, and approximately 1.1-mile east of Euclid Avenue. Existing traffic on nearby roadways consists of both passenger vehicles and trucks passing through the area and accessing the existing light industrial, agricultural, dairy farm, and airport uses in the area.

Regional vehicular travel routes in the Project area include I-15, SR-71, SR-91, and SR-60. The Project site is located approximately 4.0 miles west of the Limonite Avenue ramps to I-15; approximately 3.9 miles northeast of the Euclid Avenue ramps to SR-71; approximately 6.4 miles northeast of the SR-71/SR-91 interchange; and approximately 3.6 miles southeast of the Euclid Avenue ramps to SR-60. (Google Earth, 2018)

There is nominal pedestrian and bicycle activity in the area (Urban Crossroads, 2018e, p. 93). Public transit service in the Project region is provided by Omnitrans and the Riverside Transit Authority; however, there are no public transit stops in the vicinity of the Project site under existing conditions (Google Earth, 2018; Urban Crossroads, 2018e, p. 93). The Chino Airport is located less than 0.10-mile to the west of the Project site and provides for general aviation uses.

Refer to EIR Subsection 4.14, *Transportation and Traffic*, for a more detailed discussion of the Project's site existing transportation setting.

2.5.8 UTILITIES AND SERVICE SYSTEMS

Water and sewer service are provided to the Project site by the City of Chino. Under existing conditions, a 24-inch diameter water line is installed beneath existing Merrill Avenue and water lines ranging from a 6-inch diameter to a 30-inch diameter are installed beneath existing Flight Avenue and Remington Avenue. Reclaimed water lines, ranging in size from an 8-inch diameter to a 30-inch diameter are located beneath Flight Avenue, Merrill Avenue (portion), and Remington Avenue under existing conditions. Existing sanitary sewer infrastructure in the Project area includes an 8-inch diameter sewer main beneath existing Flight Avenue and Remington Avenue.

The Project site is located within Subarea 2 of the City of Chino Storm Drain Master Plan. Under existing conditions, a storm drain line that transitions from a 24-inch to a 60-inch diameter is located beneath existing Flight Avenue (portion) and a 54-inch storm drain line is located beneath Remington Avenue.

The Project site also is located in the service territories of the Southern California Gas Company (natural gas) and Southern California Edison (electricity). Solid waste disposal services are provided by Waste Management, Inc., a private company under franchise agreement with the City of Chino.

2.5.9 VEGETATION COMMUNITIES

The entire Project site has previously been disturbed/developed and contains non-native vegetation. Glenn Lukos Associates (GLA) conducted a biological field survey in 2017 and did not observe any special-status

plants on the Project site. According to vegetation mapping conducted by GLA, vegetation within the Project site consists of non-native, ruderal species, including London rocket (*Sisymbrium irio*), lamb's quarters (*Chenopodium album*), Russian thistle (*Salsolatragus*), cheeseweed (*Malva parviflora*), tree tobacco (*Nicotiana glauca*), tocalote (*Centaurea melitensis*), five-hook bassia (*Bassia hyssopifolia*), prostrate pigweed (*Amaranthus blitoides*), Palmer's pigweed (*Amaranthus palmeri*), Bermuda grass *(Cynodon dactylon*), and other nonnative grasses. In addition, a large windrow comprised predominantly of tamarisk (*Tamarix aphylla*) trees is located just off-site (and to the west) of the Project site, which screens the adjacent Chino Airport from the Project site. A complete list of plant species observed on the Project site is included in Table 4-2 of *Technical Appendix D*. (GLA, 2017, pp. 17-19)

Refer to EIR Subsection 4.4, *Biological Resources*, for a more detailed discussion of the Project's site existing biological setting.

2.5.10 Wildlife

No special-status wildlife species were observed on the Project site during field surveys conducted by GLA; however, based on the physical characteristics of the Project site and the surrounding area, the following seven special-status species have potential to occur in the Project area: Burrowing Owl (*Athene cunicularia*), Golden Eagle (*Aquila chrysaetos*), Loggerhead Shrike (*Lanius ludovicianus*), Northern Harrier (*Circus cyaneus*), White-tailed Kite (*Elanus leucurus*), Western Mastiff Bat (*Eumops perotis californicus*), and Western Yellow Bat (*Lasiurus xanthinus*). (GLA, 2017, pp. 29-31)

Refer to EIR Subsection 4.4, *Biological Resources*, for a more detailed discussion of the Project's site existing biological setting.

2.5.11 Rare and Unique Resources

As required by CEQA Guidelines Section 15125(c), the environmental setting should place special emphasis on resources that are rare or unique to that region and would be affected by the project. Based on the existing conditions of the Project site and surrounding area described above and discussed in more detail in Section 4.0, *Environmental Analysis*, the Project site does not contain any resources that are rare or unique to the region. The region was once predominately agricultural in character, but has been transitioning to a suburban development pattern since the 1990s. Refer to Subsection 4.2, *Agricultural and Forestry Resources*, for more information about agricultural resources.

3.0 PROJECT DESCRIPTION

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

3.1 PROJECT LOCATION

The Project site is located in the southern portion of the City of Chino, San Bernardino County, California. The City of Chino is located south of the City of Ontario, west of the City of Eastvale, and east of the City of Chino Hills, in the southwestern portion of San Bernardino County, California. As shown on Figure 3-1, *Regional Map*, the Project site is approximately 4.0 miles west of Interstate 15 (I-15), approximately 3.3 miles south of State Route 60 (SR-60), and approximately 3.2 miles northeast of State Route 71 (SR-71).

At the local scale, the Project site is located south of Merrill Avenue and west of Flight Avenue as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*. The approximately 74.4-acre Project site includes Assessor Parcel Numbers (APNs) 1054-391-02 and -03.

Refer to EIR Section, *Environmental Setting*, for more information related to the regional and local setting of the Project site.

3.2 STATEMENT OF OBJECTIVES

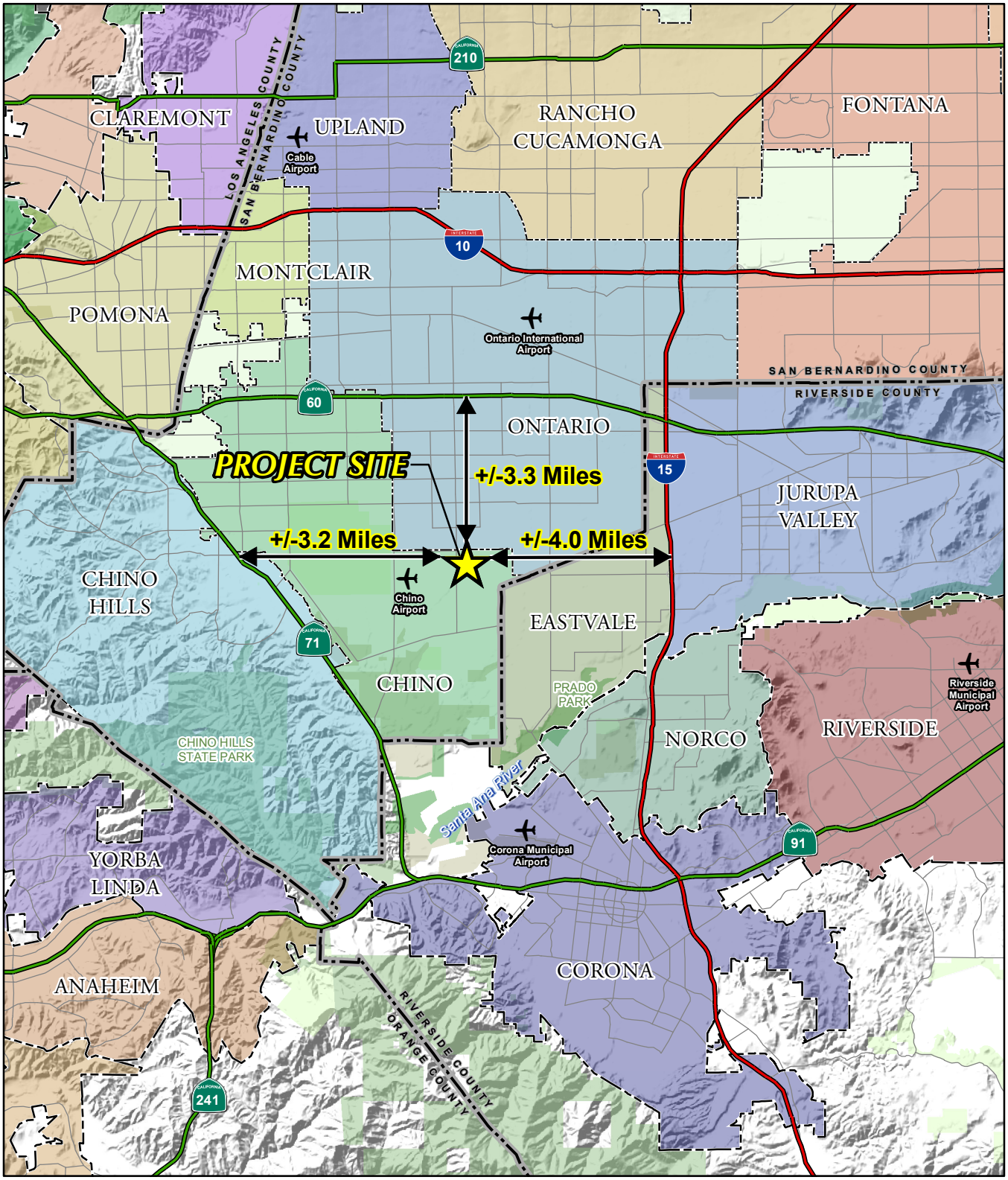
The underlying purpose of the Project and the primary goal of the Project Applicant and City of Chino in undertaking the Project is to develop an underutilized property in the City of Chino with a hub facility for a parcel delivery services company. The Project would achieve this goal through the following specific objectives.

A. To develop an underutilized property of more than 70 acres with a parcel delivery services hub facility that will modernize and streamline parcel delivery logistics in the Inland Empire area.

B. To provide a viable reuse plan for former agricultural property that maximizes feasible development of the site so that the property continues to be economically productive when agricultural activities cease.

C. To benefit the City of Chino economy by developing a large property with an employment-generating land use with long-term economic viability.

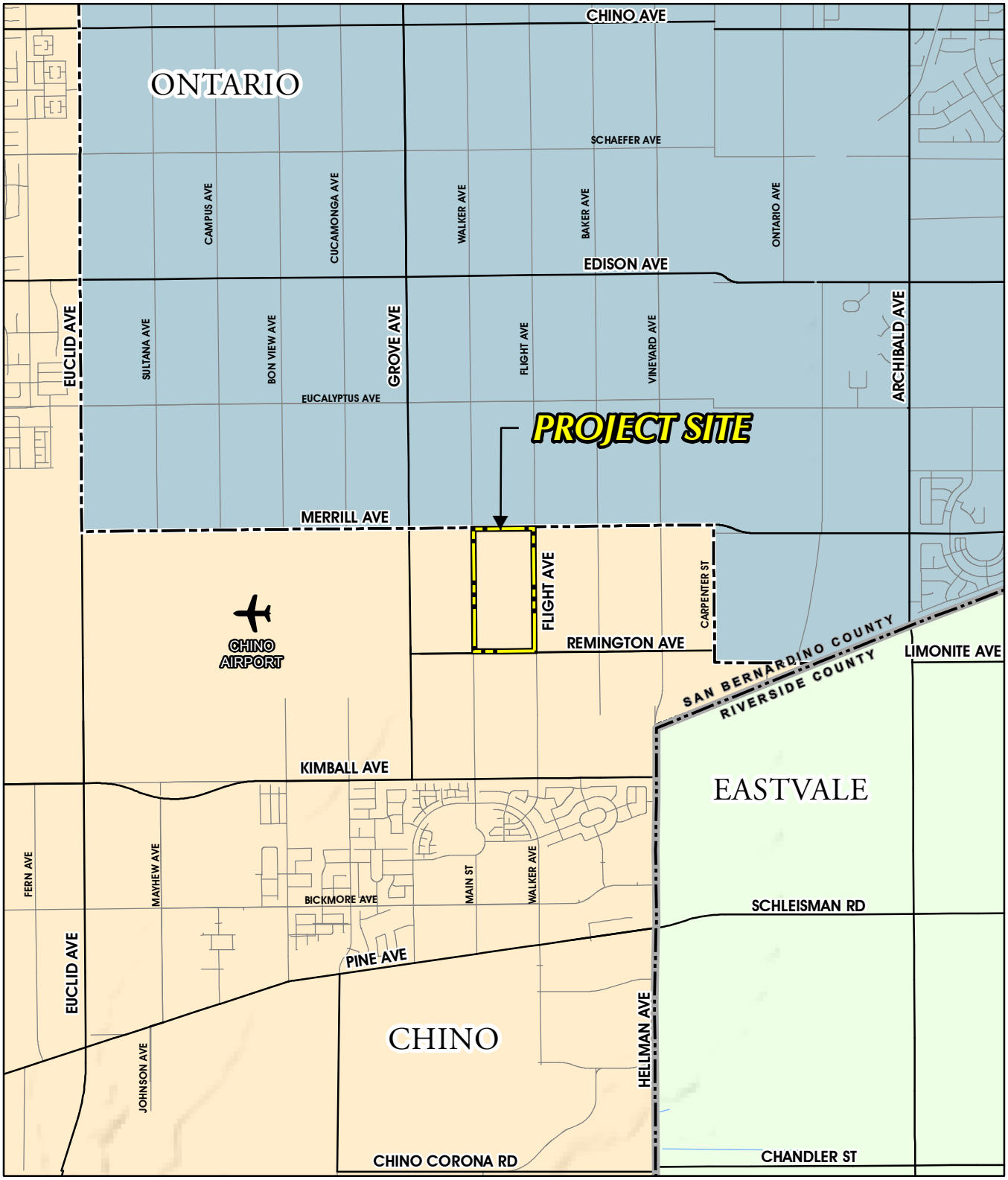
D. To create an employment-generating business in the City of Chino thereby reducing the need for members of the local workforce to commute outside the area for employment.



Source(s): ESRI, RCTLMA (2018), SB County (2017)

Figure 3-1

REGIONAL MAP

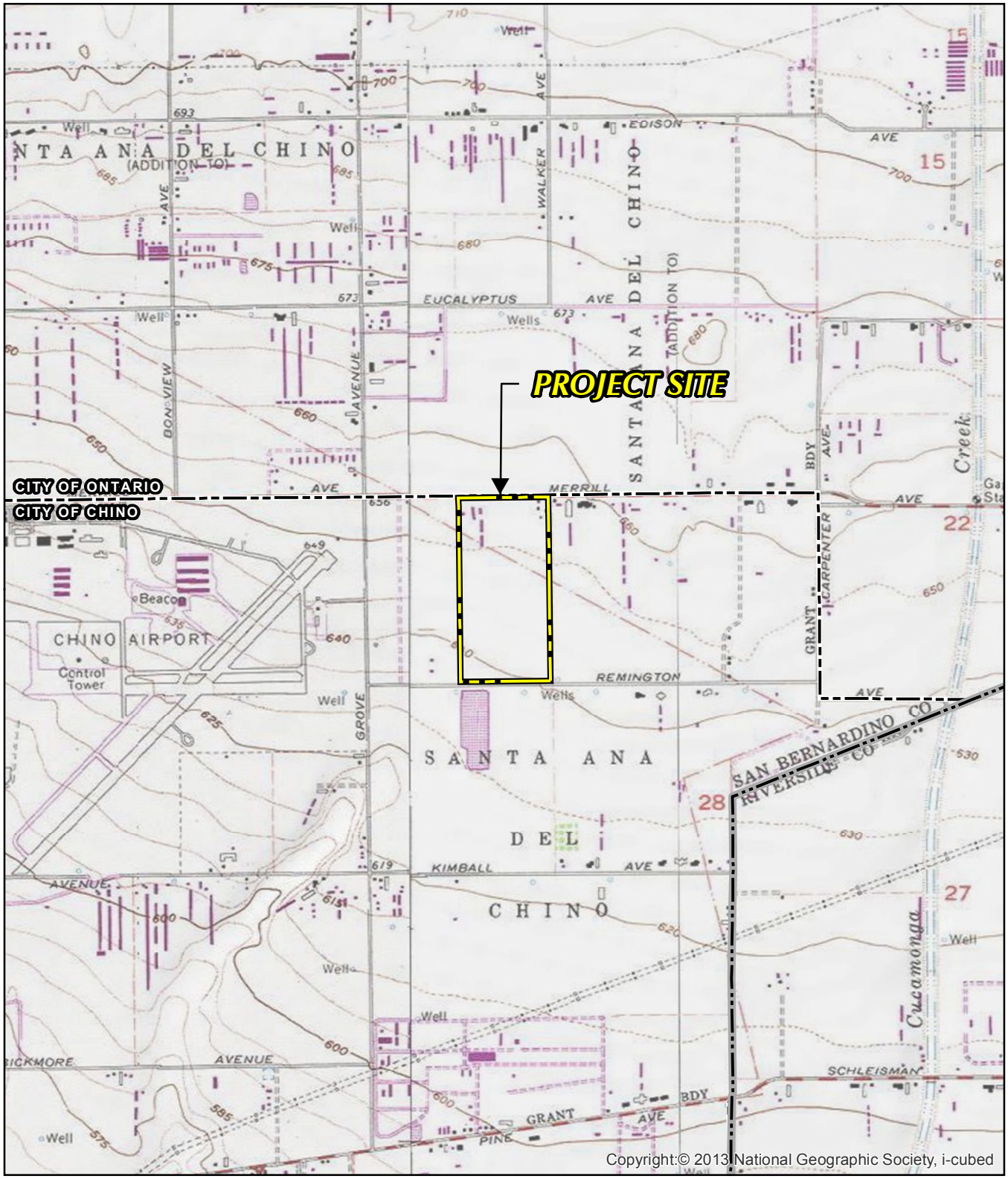


Source(s): ESRI, RCTLMA (2018), SB County (2017)

Figure 3-2

0 750 1,500 3,000 Feet

VICINITY MAP



Source(s): USGS (2013)

Figure 3-3

0 500 1,000 2,000 Feet

USGS TOPOGRAPHIC MAP

E. To develop a project in close proximity to regional transportation routes, including designated truck routes, to minimize traffic congestion on surface streets, reduce vehicle miles traveled (VMT), and minimize concomitant air pollution emissions from vehicle sources.

F. To develop a project with an architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.

G. To develop a property that has access to existing, available infrastructure.

H. To add an industrial use in the City of Chino that will add to the diversity of uses already present in the City.

3.3 PROJECT'S COMPONENT PARTS

The Project involves the development of a distribution hub facility for a parcel delivery services company on an approximately 74.4-acre site. Discretionary approvals requested from the City of Chino include a General Plan Amendment (PL16-0638), a Specific Plan Amendment (PL16-0639), a Master Site Approval (PL16-0719), a Site Approval (PL16-0720), and a Special Conditional Use Permit (PL16-0721). Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-2, *Matrix of Approvals/Permits,* at the end of this EIR section.

3.3.1 GENERAL PLAN AMENDMENT (PL16-0638)

General Plan Amendment (GPA) No. PL16-0638 would amend the City of Chino's General Plan Land Use Map as it applies to the Project site by changing the site's land use designation from "Public" to "Light Industrial" (refer to Figure 3-4, *General Plan Amendment No. PL16-0638*). Pursuant to the General Plan, the "Light Industrial" land use designation generally provides for single-tenant light industrial or manufacturing uses on minimum 1.0-acre lots and a floor area ratio (FAR) up to 0.6.

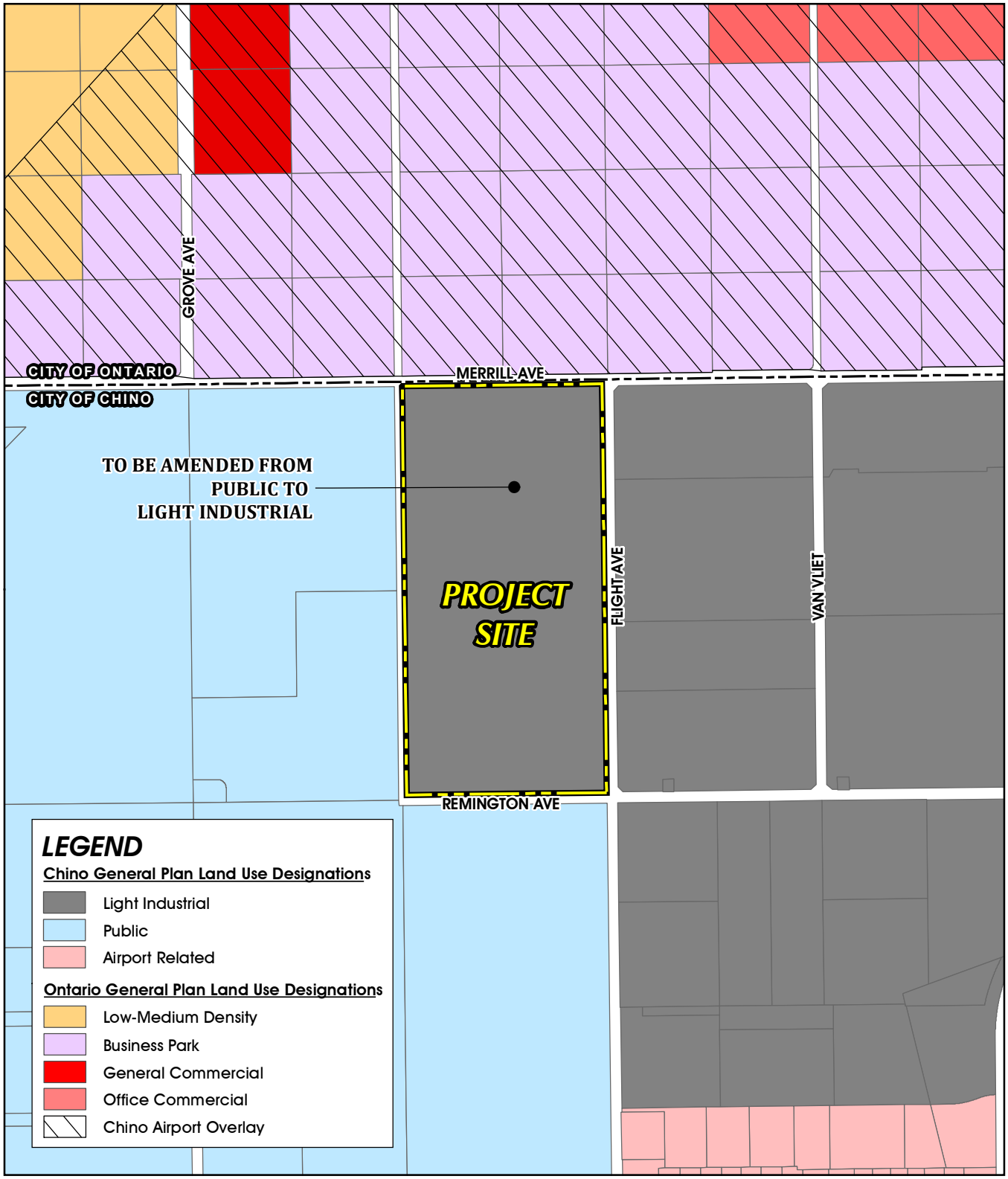
3.3.2 SPECIFIC PLAN AMENDMENT (PL16-0639)

Specific Plan Amendment (SPA) No. PL16-0639 would amend The Preserve Specific Plan Land Use Plan as it applies to the Project site by changing the site's land use designation from "Public" to "Light Industrial" (refer to Figure 3-5, *Specific Plan Amendment No. PL16-0639*). Pursuant to The Preserve Specific Plan, the "Light Industrial" land use designation is intended to accommodate a wide variety of industrial uses that can be considered "light" by nature of their size, activity, and performance characteristics. The "Light Industrial" land use designation specifies a minimum project size of 5.0 acres and a maximum FAR of 0.47.

3.3.3 MASTER SITE APPROVAL (PL16-0719) AND SITE APPROVAL (PL16-0720)

A. General Description

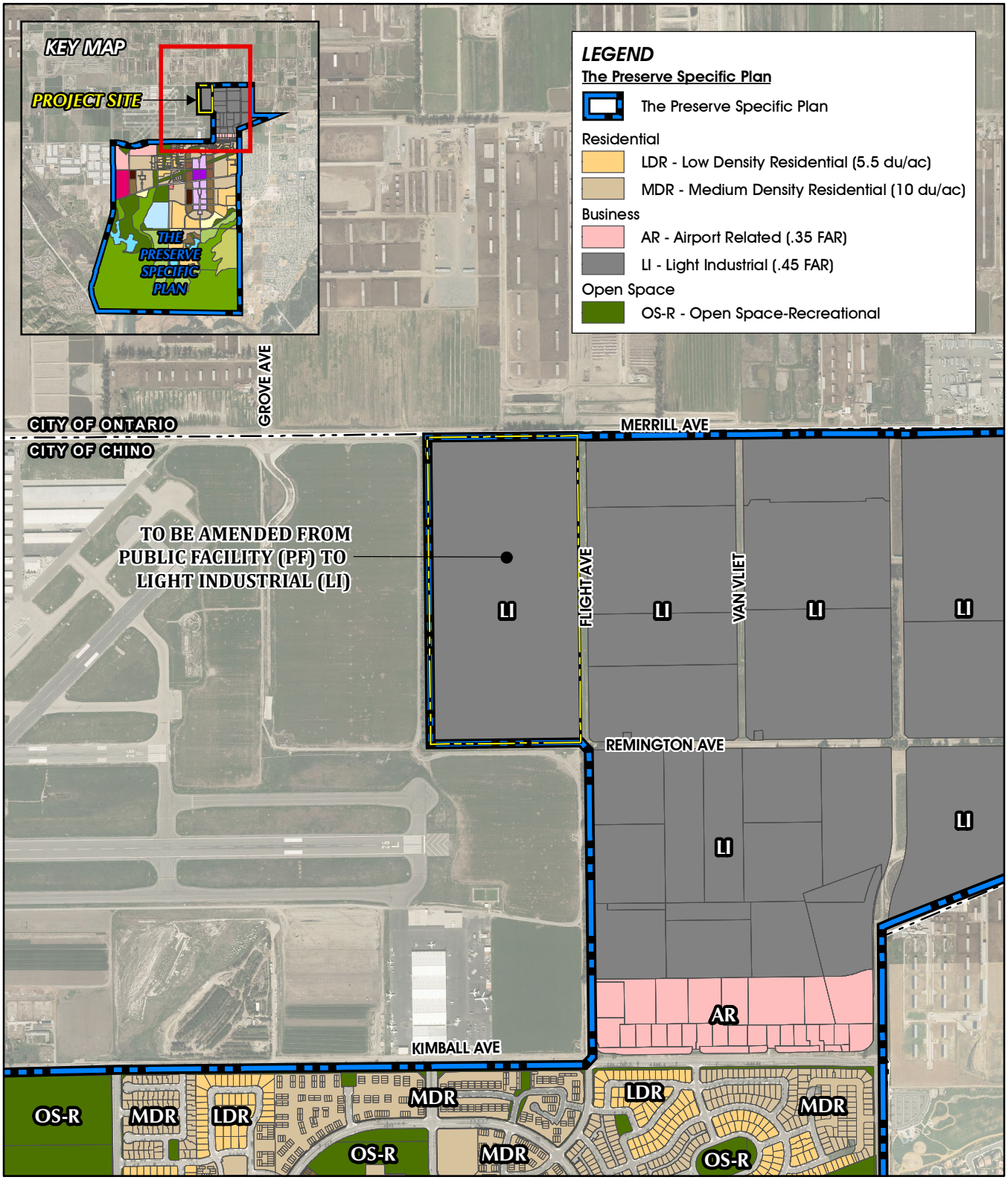
Master Site Approval (MSA) No. PL16-0719 and Site Approval (SA) No. PL16-0720 provide a specific development plan for the 74.4-acre Project site, including a site layout, architectural design, and landscaping



Source(s): ESRI, City of Chino (2017), City of Ontario (2018), SB County (2017)

Figure 3-4

GENERAL PLAN AMENDMENT NO. PL16-0638



Source(s): ESRI, City of Chino (2016), Nearnap Aerial (2018), SB County (2017)

Figure 3-5

0 300 600 1,200 Feet

plan. The Project would operate as a hub facility for a parcel delivery services company. As shown on Figure 3-6, *Site Plan*, the hub facility would comprise a sorting/distribution building and four (4) ancillary structures: a gateway (security) building, a maintenance building, and two (2) guardhouses for vehicle check-in/check-out. Associated physical improvements to the Project site would include, but not be limited to, a fueling island (dispensing diesel fuel stored in underground storage tanks), surface parking areas, vehicle drive aisles, landscaping, water quality/detention basin, utility infrastructure, exterior lighting, and signage. None of the Project's buildings would encroach within Airport Safety Zone I (from the Chino General Plan/1991 Chino Airport ALUCP) or within the FAA's vertical or horizontal runway protection zone (RPZ) for the Chino Airport.

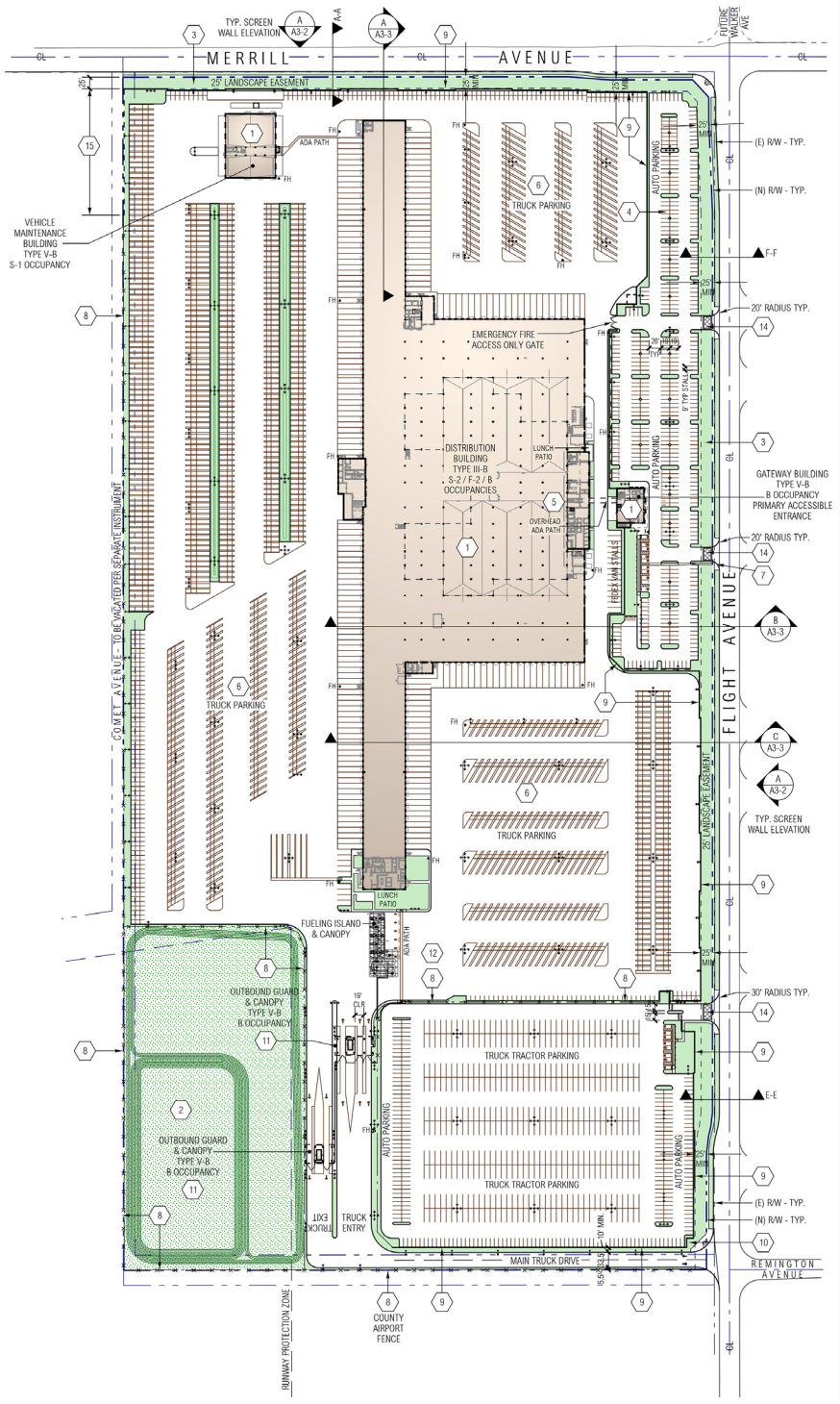
Sorting/Distribution Building

The approximately 476,285 s.f. sorting/distribution building would be primarily occupied by integrated parcel sorting, handling, and conveyance equipment. Office, meeting, and lounge spaces would be provided in various parts of the building to support the facility's operations. The sorting/distribution building is designed to provide approximately 513 automobile parking spaces for employees and visitors, approximately 816 trailer parking spaces, approximately 402 storage spaces for dolly trailers (i.e., 2-wheeled apparatus used to connect two trailers), and approximately nine (9) short-term parking spaces for tractors awaiting dispatch. The building's parking plan is designed to accommodate peak operations (which typically occur during the year-end holiday season for parcel delivery companies); the parking spaces are unlikely to be fully occupied during most of the year. During non-peak operations, it is expected that approximately 50-75% of the parking spaces would be occupied and the remaining spaces would be empty.

The sorting/distribution building would have a typical parapet height of 50 feet above the finished floor of the building; decorative building elements could exceed 50 feet in height. The sorting/distribution building is designed to be constructed of concrete tilt-up panels and low-reflective, blue glass. The building's exterior color palette would be comprised of various shades of tan, gray, white, and blue. Decorative building elements include parapets, clearcoat metal canopies, decorative metallic tile, and clear anodized mullions. Conceptual architectural elevations for the sorting/distribution building are illustrated on Figure 3-7, *Conceptual Architectural Elevations – Sorting/Distribution Building*.

Gateway Building

The approximately 8,973 s.f. gateway building would be located on the east side of the sorting/distribution building with access provided from Flight Avenue. The gateway building would serve as a security check-in point for all employees/visitors accessing the hub facility (except for truck drivers, who would be screened at the proposed guardhouses). The gateway building also would include office/meeting space. The gateway building would have a maximum height of 41-feet and is designed to be constructed using the same building materials and color palette as the sorting/distribution building. Conceptual architectural elevations for the gateway building are illustrated on Figure 3-8, *Conceptual Architectural Elevations – Ancillary Structures.*



PROJECT DATA

APPLICATIONS:

GENERAL PLAN AMENDMENT	PL16-0638
SPECIFIC PLAN AMENDMENT	PL16-0639
MASTER SITE APPROVAL	PL16-0719
SITE APPROVAL	PL16-0720
SPECIAL CONDITIONAL USE PERMIT	PL16-0721

GENERAL PLAN:

CURRENT GENERAL PLAN DESIGNATION	PUBLIC
PROPOSED GENERAL PLAN DESIGNATION	LIGHT INDUSTRIAL

ZONING:

	PRESERVE SPECIFIC PLAN
CURRENT SPECIFIC PLAN LAND USE DESIGNATION	PUBLIC FACILITY
PROPOSED SPECIFIC PLAN LAND USE DESIGNATION	LIGHT INDUSTRIAL

CONSTRUCTION TYPE / OCCUPANCY	SEE PLANS
SITE AREA:	3,320,583 SF / 76.23 AC

BUILDING AREAS:

DISTRIBUTION CENTER (460,502 SF FOOTPRINT)	476,285 SF
GATEWAY BUILDING (4,770 SF FOOTPRINT)	8,973 SF
VEHICLE MAINTENANCE (15,527 SF FOOTPRINT)	17,480 SF
INBOUND GUARDHOUSE	220 SF
OUTBOUND GUARDHOUSE	220 SF
TOTAL	503,178 SF
COVERAGE:	14.49 %
FAR:	15.15 %

PARKING REQUIRED FOR SPECULATIVE PROJECTS:

OFFICE = 50,958 SF 1/250 SF	204 STALLS
0% MANUF. = 0 SF 1/600 SF	0 STALLS
WH = 452,220 SF 1/1,000 SF < 20,000 SF	20 STALLS
1/2,000 SF NEXT 20,000 SF	10 STALLS
1/4,000 SF > 40,000 SF	103 STALLS
TOTAL PARKING REQUIRED:	337 STALLS

PARKING PROVIDED:

STANDARD STALLS 9' X 19'	745 STALLS
ACCESSIBLE STALLS	16 STALLS
TOTAL PARKING PROVIDED	761 STALLS
LANDSCAPE AREA	538,927 SF
LANDSCAPE COVERAGE (15% MIN)	16.2 %
IMPERVIOUS AREA	2,278,656 SF

KEYNOTES (000)

1. PROPOSED PAINTED CONCRETE TILT-UP DISTRIBUTION / OFFICE / MAINTENANCE FACILITY.
2. WATER QUALITY AND DETENTION BASIN.
3. SHADED AREA: PROPOSED IRRIGATED LANDSCAPING PER GUIDELINES WITH MIN 6" CONCRETE CURBS AT ALL INTERIOR PERIMETERS.
4. TYPICAL STANDARD PARKING STALLS MIN. 9' X 19' (OR 18' + 1' OVERHANG) - STRIPE PER STANDARDS. BICYCLE PARKING SHALL BE PROVIDED AT A RATIO OF 5% OF THE REQUIRED AUTOMOBILE PARKING.
5. ACCESSIBLE BUILDING ENTRY.
6. PAVED TRUCK YARD.
7. ON SITE ACCESSIBLE SIDEWALK AND CURB RAMPS CONNECTING TO A PUBLIC WAY.
8. 8'-0" CHAIN LINK FENCE ALONG PROPERTY LINE.
9. 10'-0" HIGH (MINIMUM AS MEASURED FROM INSIDE THE SITE) PAINTED CONCRETE OR MASONRY SCREEN WALL. THE WALL SHALL BE 8'-0" HIGH MINIMUM AS MEASURED FROM THE STREET SIDE. AT STREET FRONTAGES THE WALL SHALL BE STAGGERED 3' AT 125' MAX. OFFSETS.
10. FUTURE ILLUMINATED SIGNAGE TO BE UNDER SEPARATE APPLICATION.
11. PRE-MANUFACTURED GUARD HOUSE BUILDING AND CANOPY STRUCTURE PAINTED TO MATCH MAIN CONCRETE BUILDINGS.
12. PRE-MANUFACTURED FUEL ISLAND CANOPY STRUCTURE PAINTED TO MATCH MAIN CONCRETE BUILDINGS.
13. 8'-0" HIGH TUBULAR STEEL FENCE WITH CMU PILASTERS AT 80' O.C.
14. ENHANCED PAVING AT DRIVEWAY ENTRANCE.
15. EXISTING WINDROW TREES TO REMAIN ALONG WEST PROPERTY LINE. SHOULD TREES BE REMOVED IN THE FUTURE, A MAXIMUM 275' LONG SCREEN WALL WILL BE CONSTRUCTED.

GENERAL NOTES

1. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED WITH ADDITIONAL LANDSCAPE.
2. ALL ROOF TOP EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW BY ROOF PARAPET OR ROOF SCREEN.
3. ALL LANDSCAPE SHALL BE PERMANENTLY & AUTOMATICALLY IRRIGATED.
4. ALL PARKING STALLS ARE PER CITY OF CHINO STANDARDS: 9' X 19'.
5. ALL PROPOSED SIGNS SHALL BE DESIGNED TO CONFORM TO THE CHINO MUNICIPAL CODE TITLE 16 SIGN CODE.

LEGAL DESCRIPTION

ASSESSOR'S PARCEL NUMBERS 1054-391-02 AND 1054-391-03

APPLICANT

SCANNELL PROPERTIES
8801 RIVER CROSSING BL STE 300
INDIANAPOLIS, IN 46240
CONTACT: COURTNEY LEHMAN
317-843-5959

PLAN PREPARER

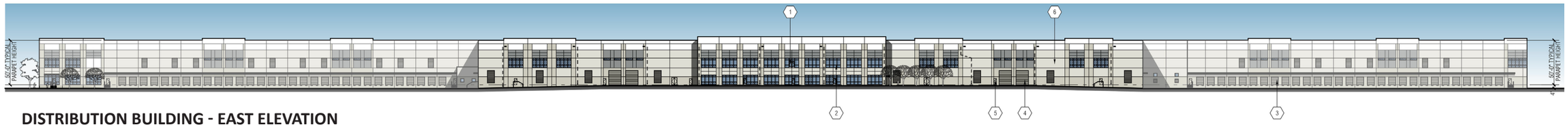
RGA, OFFICE OF ARCHITECTURAL DESIGN
15231 ALTON PARKWAY SUITE 100
IRVINE, CA. 92618
CONTACT: DENNIS ROY
PH: 949-341-0920

Source(s): RGA (11-28-2018)

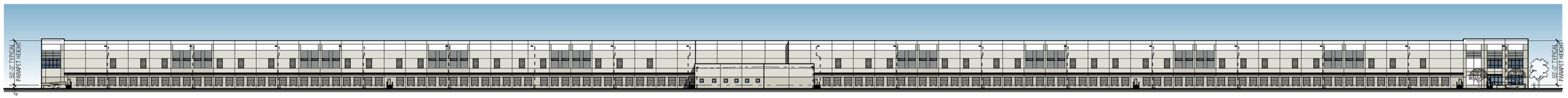
Figure 3-6

NOT TO SCALE

SITE PLAN



DISTRIBUTION BUILDING - EAST ELEVATION



DISTRIBUTION BUILDING - WEST ELEVATION

DISTRIBUTION BUILDING - NORTH ELEVATION

DISTRIBUTION BUILDING - SOUTH ELEVATION

KEYNOTES ⟨X⟩

1. PRIMARY ACCESSIBLE BUILDING ENTRY ACROSS BRIDGE FROM GATEWAY BUILDING.
2. BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PAINTED DOCK HIGH TRUCK LOADING DOOR.
4. PAINTED GRADE LEVEL VAN ACCESS DOOR DOOR.
5. 3' X 7' PAINTED METAL MAN DOOR.
6. PAINTED CONCRETE TILT-UP BUILDING WALL PANEL WITH REVEAL SCORES.
7. DASHED LINE: ROOF LINE BEHIND PARAPET. ROOF MOUNTED OFFICE HVAC EQUIPMENT SHALL BE HIDDEN FROM VIEW OF ADJACENT ROADWAYS / STREETS.

FINISH SCHEDULE

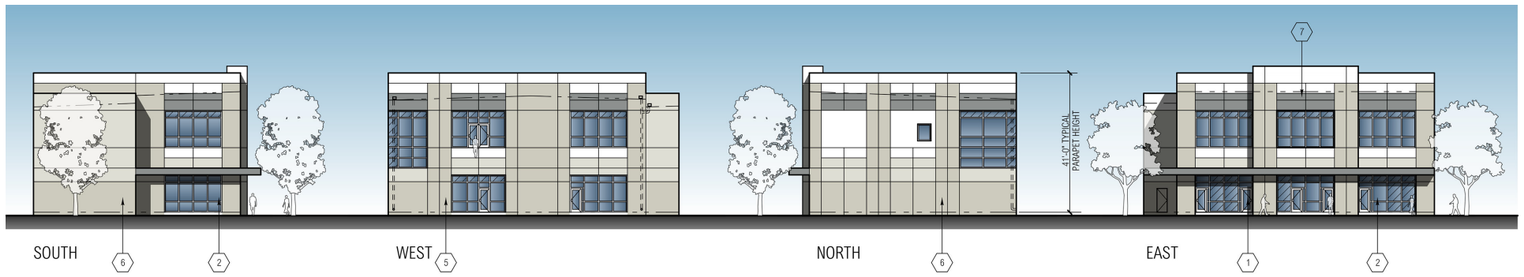
1. FIELD COLOR - SW 7042 SHOJI WHITE
2. FIELD COLOR - SW 7022 ALPACA
3. ACCENT COLOR - SW 9168 ELEPHANT EAR
4. ACCENT COLOR - 4. ACCENT COLOR - SW 9163 TIN LIZZIE
5. GLAZING - SEE KEYNOTE 2 - PPG SOLARCOOL PACIFICA REFLECTIVE #2.

Source(s): RGA (11-27-2018)

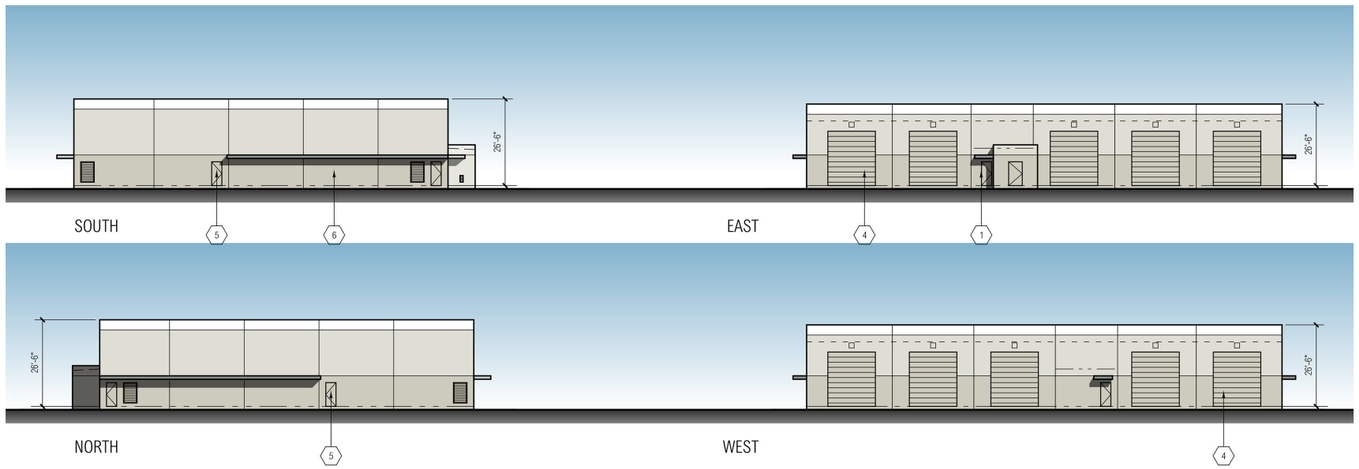
Figure 3-7

NOT TO SCALE

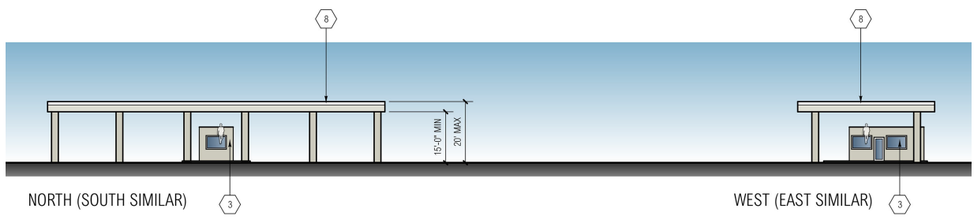
CONCEPTUAL ARCHITECTURAL ELEVATIONS – SORTING/DISTRIBUTION BUILDING



GATEWAY BUILDING ELEVATIONS



VEHICLE MAINTENANCE BUILDING ELEVATIONS



GUARD HOUSES AND CANOPIES

KEYNOTES ⟨X⟩

1. PRIMARY ACCESSIBLE BUILDING ENTRY
2. BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PRE-ENGINEERED STEEL GUARD HOUASE STRUCTURE. COLOR TO MATCH MAIN BUILDING.
4. PAINTED GRADE LEVEL VAN ACCESS DOOR DOOR.
5. 3' X 7' PAINTED METAL MAN DOOR.
6. PAINTED CONCRETE TILT-UP BUILDING WALL PANEL WITH REVEAL SCORES.
7. ROOF LINE BEHIND PARAPET. ROOF MOUNTED OFFICE HVAC EQUIPMENT SHALL BE HIDDEN FROM VIEW OF ADJACENT ROADWAYS / STREETS.

FINISH SCHEDULE

1. FIELD COLOR - SW 7042 SHOJI WHITE
2. FIELD COLOR - SW 7022 ALPACA
3. ACCENT COLOR - SW 9168 ELEPHANT EAR
4. ACCENT COLOR - 4. ACCENT COLOR - SW 9163 TIN LIZZIE
5. GLAZING - SEE KEYNOTE 2 - PPG SOLARCOOL PACIFICA REFLECTIVE #2.

Source(s): RGA (10-17-2018)

Figure 3-8

NOT TO SCALE

CONCEPTUAL ARCHITECTURAL ELEVATIONS – ANCILLARY STRUCTURES

Maintenance Building

The 17,480 s.f. maintenance building is proposed in the northwest corner of the Project site. The maintenance building would be 26.5 feet tall and would be constructed of concrete tilt-up panels painted tan with white accents. The work bays would feature roll-up metal doors painted tan. Conceptual architectural elevations for the maintenance building are illustrated on Figure 3-8.

Guardhouses

Two, 220 s.f. guardhouses are proposed in the southern portion of the Project site to control tractor-trailer access to/from the site. Each guardhouse would be approximately 10-feet-tall and would be covered by a canopy with a minimum height of 15 feet and a maximum height of 20 feet. The guardhouses would be constructed of pre-fabricated metal that would be painted tan with white accents. Conceptual architectural elevations for the guardhouses are illustrated on Figure 3-8.

Line-haul Tractor Parking Lot

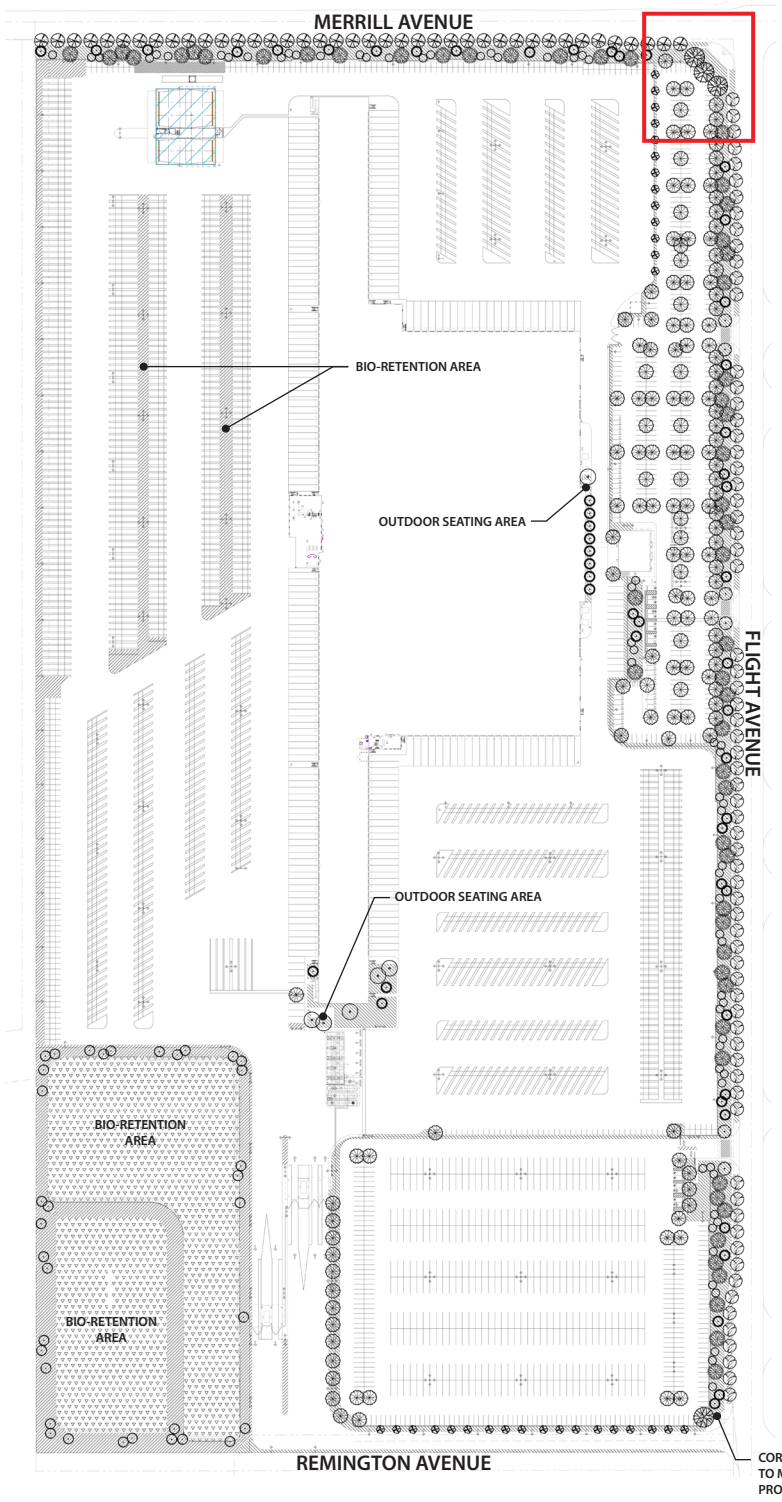
A line-haul tractor parking lot is planned in the southeast corner of the Project site (abutting the Remington Avenue / Flight Avenue intersection). The parking lot would contain 390 tractor parking spaces and 272 automobile spaces. The lot is designed to accommodate peak operations and the parking spaces are unlikely to be fully occupied during most of the year. Access to the line-haul tractor parking lot is provided via a driveway from Flight Avenue. Fencing would be provided along the perimeter of the line-haul tractor parking lot to separate the lot from the sorting/distribution building's truck yard.

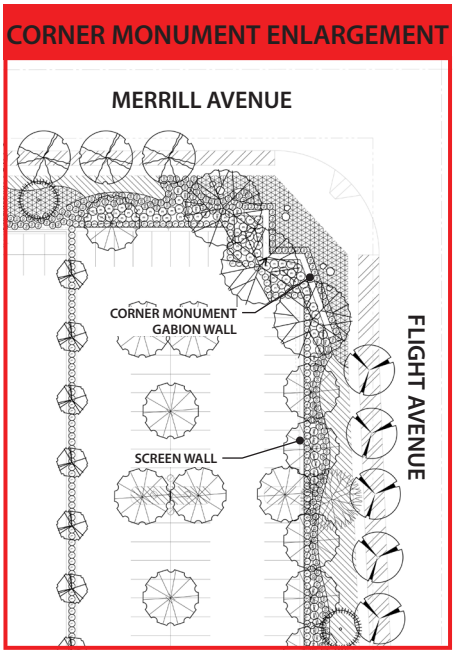
B. Conceptual Landscape Plan

The conceptual landscape plan for the Project is depicted on Figure 3-9, *Conceptual Landscape Plan*. Landscaping would be, primarily, ornamental in nature and would feature drought-tolerant trees and shrubs in addition to a variety of groundcovers; however, the plant materials provided in the water quality/detention basin would be selected to provide water quality benefits (e.g., by filtering waterborne pollutants). Landscaping is designed to be concentrated along the Project site's frontages with Merrill Avenue and Flight Avenue, and in-and-around the Project's water quality/detention basin. The installed landscaping will be designed so as to not interfere with operations at the Chino Airport. Pursuant to City of Chino Municipal Code Chapter 20.19, proposed landscaping would be installed with automatic irrigation systems using water efficient irrigation equipment.

3.3.4 Special Conditional Use Permit (PL16-0721)

The City of Chino requires the approval of a Special Conditional Use Permit (SCUP) to allow the construction of buildings over 50,000 s.f. and to allow buildings with loading doors that face a public street. Because the sorting/distribution building proposed by PL16-0719 and PL16-0720 exceeds 50,000 s.f. and has loading doors that face public streets (Merrill Avenue and Flight Avenue), SCUP (PL16-0721) is required to implement the Project.





SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	Cassia leptophylla Gold Medallion Tree	24" Box	74	L	Standard Street Tree
	Chilopsis linearis Desert Willow	24" Box	44	L	Multi
	Chitalpa tashkentensis Chitalpa	15 Gal	146	L	Standard
	Gleditsia tricanthos 'Shademaster' Honey Locust	24" Box	40	L	Standard Street Tree
	Geijera parviflora Australian Willow	24" Box	69	L	Standard Street Tree
	Heteromeles arbutifolia Toyon	15 Gal	35	L	Multi
	Olea europaea Olive	48" Box	6	L	Multi
	Pinus eldarica Afghan Pine	24" Box	61	L	Standard
	Platanus racemosa California Sycamore	36" Box 24" Box	26 36	M	Multi
	Quercus agrifolia Coast Live Oak	48" Box	4	M	Multi
	Rhus lancea African Sumac	24" Box	5	L	Multi
	Tristania conferta Brisbane Box	15 Gal	31	M	Standard

Tree size requirements - Total of 392 trees exclusive of street trees

Required	Provided
36" Box - 10%	36" Box - 10%
24" Box - 25%	24" Box - 37%
15 Gal - 65%	15 Gal - 53%

Source(s): Hunter Landscape (11-27-2018)

Figure 3-9

NOT TO SCALE

CONCEPTUAL LANDSCAPE PLAN

3.4 PROJECT TECHNICAL CHARACTERISTICS

3.4.1 PROJECT IMPROVEMENTS

A. Public Access Improvements

Existing Merrill Avenue and Flight Avenue would be improved along the Project site's northern and eastern frontage, respectively. The types of improvements the Project would provide include, but are not limited to, roadway widening, the construction of turn pockets, lane re-striping, the construction of curb and gutter, and the construction of sidewalks. Figure 3-10, *Roadway Cross-Sections*, depicts the Project's typical improvements to Merrill Avenue and Flight Avenue. All proposed improvements would be consistent with the City of Chino General Plan Circulation Element, the circulation plan for The Preserve Specific Plan, and City of Chino engineering design standards for public streets.

The Project would require the vacation of a 25-foot-wide segment of public right-of-way for unbuilt Comet Avenue along the entirety of the Project site's western boundary and the vacation of a 37-foot-wide segment of public right-of-way for unbuilt Remington Avenue along the entirety of the Project site's southern boundary. The rights-of-way to be vacated are known by the term "paper street" because the alignments exist only on maps, with no physical attributes constructed on the property. The public right-of-way vacation would require approval from the City of Chino via subsequent discretionary action.

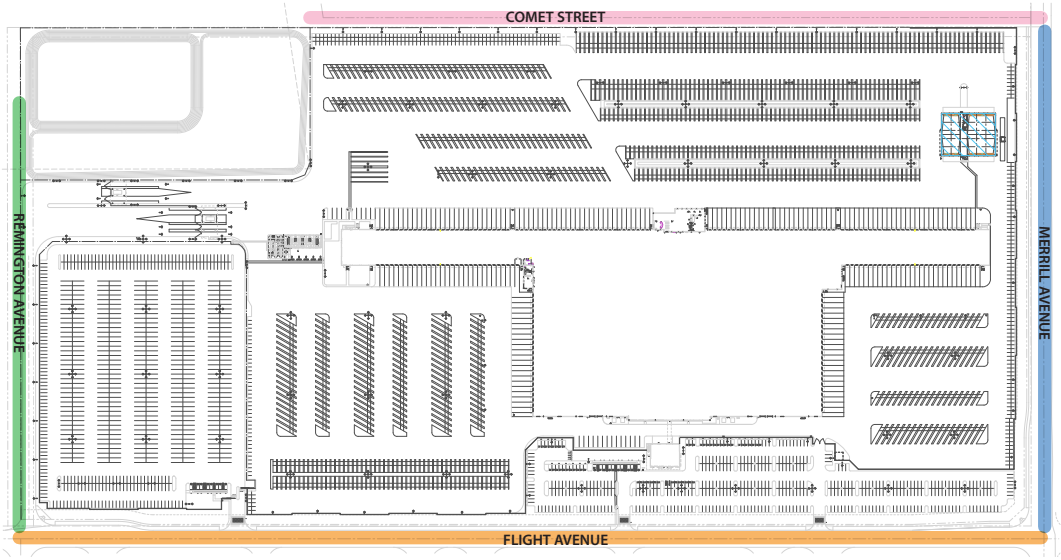
B. Water and Sewer Infrastructure Improvements

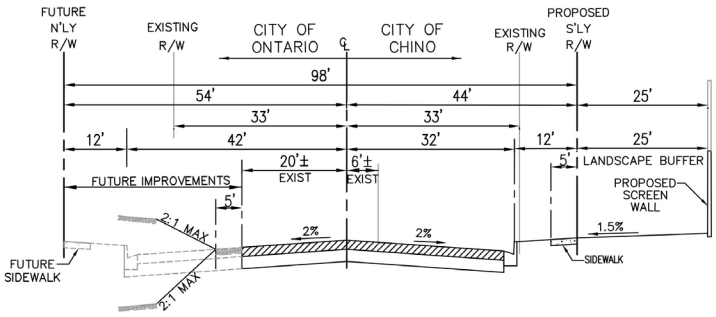
Water and wastewater conveyance service would be provided to the Project by the City of Chino. The Project would include the construction of a domestic water line that would connect to an existing water line beneath Flight Avenue. The Project also would include the construction of a sewer line that would connect to an existing sewer line beneath Flight Avenue. Figure 3-11, *Conceptual Utility Plan*, illustrates the Project's water and wastewater conveyance system.

C. Stormwater Drainage Infrastructure Improvements

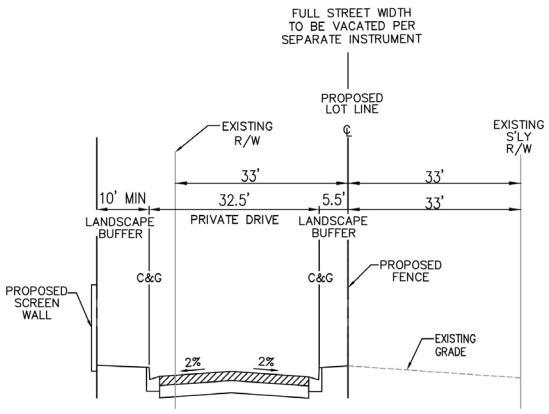
The Project's stormwater drainage system is illustrated on Figure 3-12, *Conceptual Drainage Plan*. The system would consist of a network of catch basins and underground storm drain pipes that would capture and convey storm water runoff from across the site to the proposed water quality/detention basin located in the southwest corner of the Project site.

The system is designed to collect, treat, and temporarily detain on-site stormwater runoff before discharging treated flows off-site. Specifically, "first flush" flows (i.e., initial runoff) would be diverted into the water quality/detention basin and would percolate through the soil. During peak storm events, the basin also would temporarily detain stormwater runoff on-site and would control the release of stormwater flows from the Project site to mimic existing drainage patterns and runoff volumes in the Project area. The water quality/detention basin is designed so as to not interfere with operations at the Chino Airport. Stormwater runoff would be discharged from the water quality/detention basin to a proposed private underground storm drain line that would connect the Project site to an existing underground 10-foot by 6-foot double

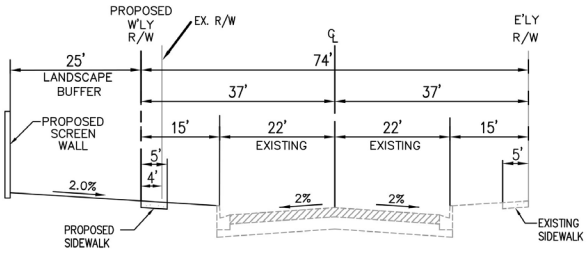




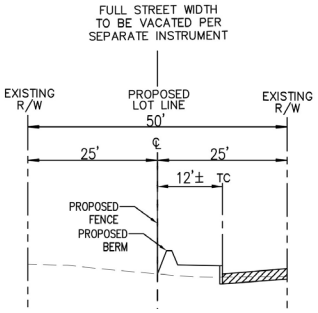
MERRILL AVENUE
(98' R.O.W.)



REMINGTON STREET
(70' R.O.W.)



FLIGHT AVENUE
(74' R.O.W.)



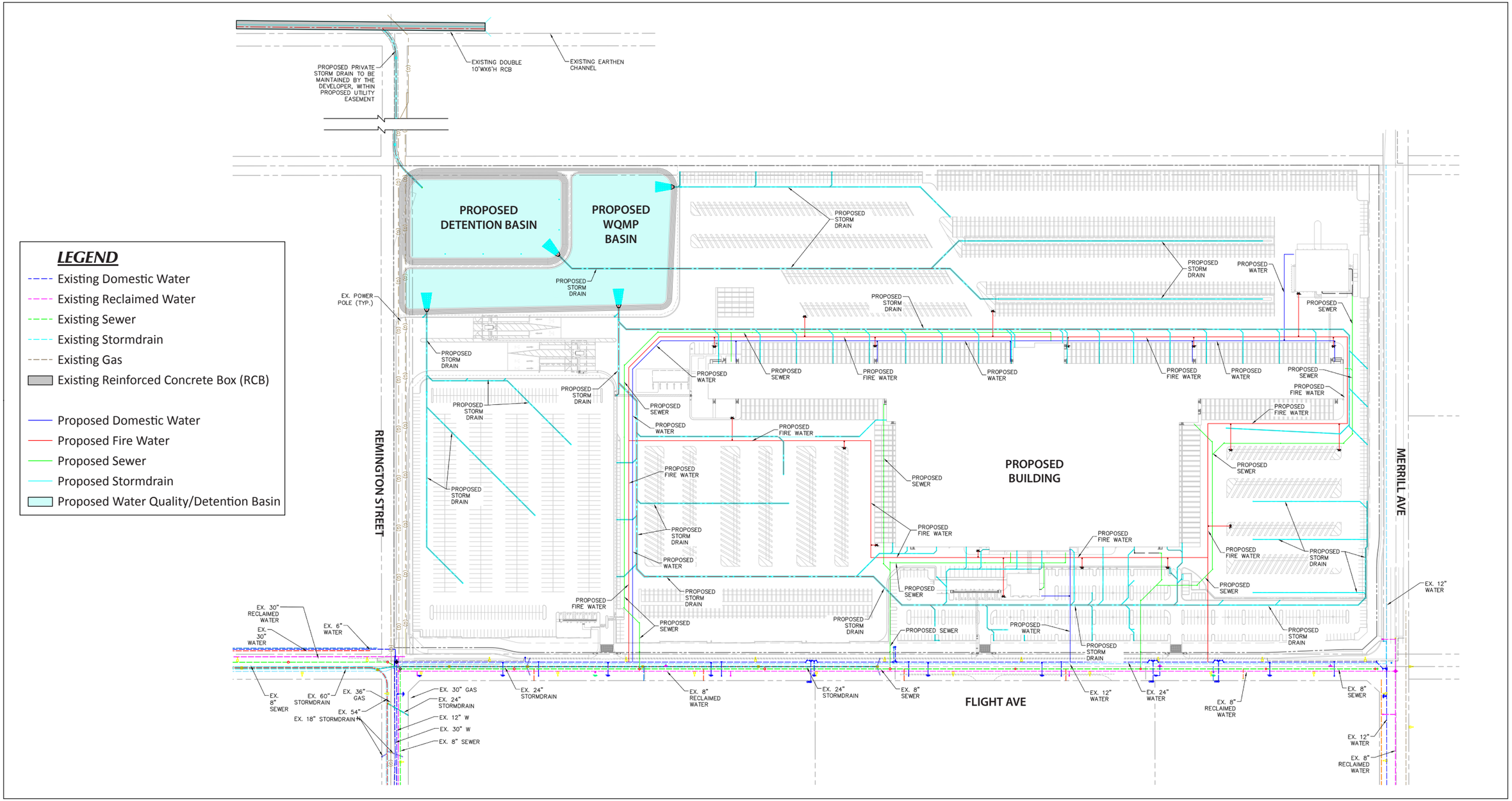
COMET STREET
(50' R.O.W.)

Source(s): D&D Engineering, Inc. (11-26-2018)

Figure 3-10

NOT TO SCALE

ROADWAY CROSS-SECTIONS

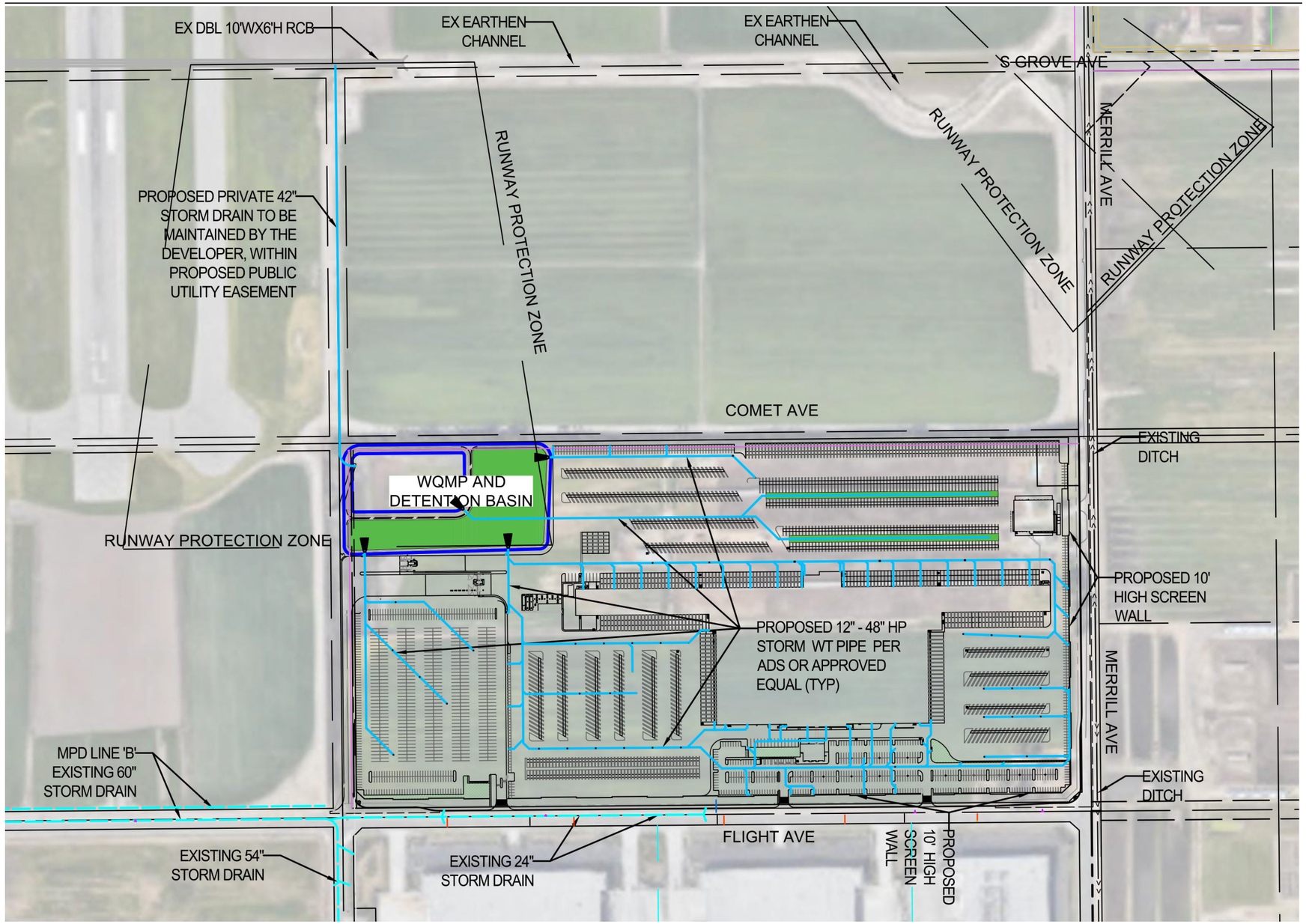


Source(s): D&D Engineering (11-26-2018)

Figure 3-11

NOT TO SCALE

CONCEPTUAL UTILITY PLAN



LEGEND

- PROPOSED STORM DRAIN
- PROPOSED LANDSCAPE AREA
- PROPOSED WATER QUALITY BMP
- PROPOSED FLOOD CONTROL BASIN
- EXISTING STORM DRAIN

Source(s): D&D Engineering (10-17-2018)

Figure 3-12

NOT TO SCALE

CONCEPTUAL DRAINAGE PLAN

reinforced concrete box (RCB) located approximately 1,200 feet west of the Project site (referred to as Line J of the *Master Plan of Drainage – Subarea 2, Chino Sphere of Influence, Chino Agricultural Preserve Area*, hereafter "*Master Plan of Drainage*"). The proposed off-site storm drain line would be constructed within the alignment of an existing east-west oriented dirt road that borders the Chino Airport.

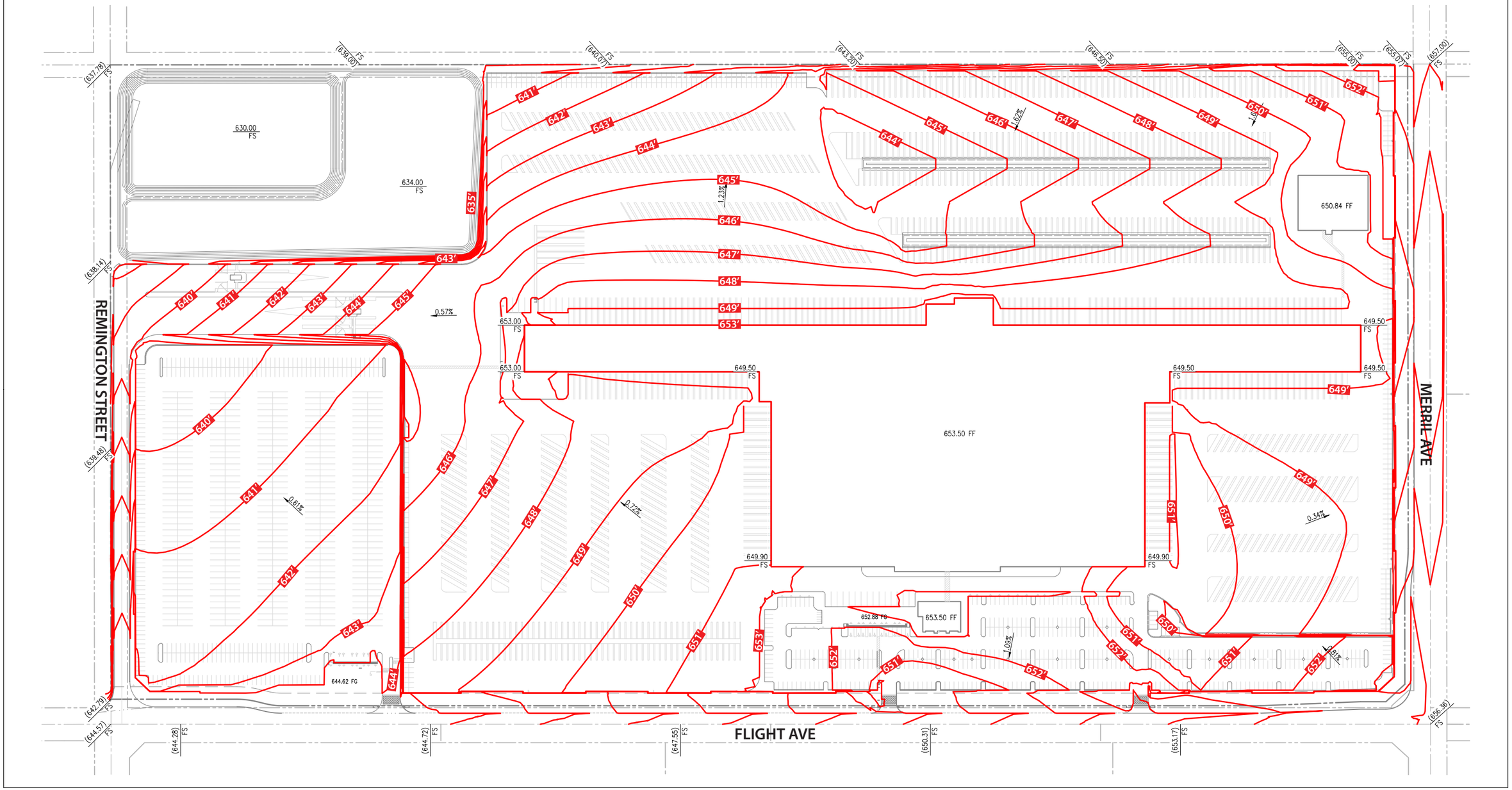
Off-site runoff, which sheet flows southerly toward the Project site from areas to the north, would be conveyed by proposed gutters along Merrill Avenue and Flight Avenue to existing inlets for existing storm drain facilities (i.e., Lines D and J, respectively, of the *Master Plan of Drainage*).

D. Earthwork and Grading

As shown on Figure 3-13, *Conceptual Grading Plan*, earthwork and grading would occur over the entire Project site; no area of the site would be left undisturbed. In addition, the Project's off-site impact area includes land that abuts the Project site within the public rights-of-way for Merrill Avenue (on the north), Flight Avenue (on the east), and Comet Avenue (on the west), as well as land within the Remington Avenue right-of-way that abuts the southwest corner of the Project site and extends west. Proposed earthwork and grading activities would occur in one phase. After consideration of the expected shrinkage and compaction of on-site soils, earthwork activities are expected to require approximately 10,000 cubic yards (c.y.) of soil export from the site. The Project would not create any manufactured slopes on-site, except around the proposed water/quality detention basin where proposed slopes would measure up to 10 feet in height with a maximum gradient of 2:1. A 16-foot-tall combination retaining wall/screen wall would be installed along the northern boundary of the Project site, adjacent to Merrill Avenue (approximately eight (8) feet of the wall would be sunk below the finished grade of Merrill Avenue and approximately eight (8) feet of the wall would rise above the finished grade of Merrill Avenue). Upon completion of grading activities, the Project site's elevations would range from a high point of approximately 652 feet above mean sea level (amsl) in the northeast portion of the Project site to a low point of approximately 640 feet amsl in the southwest portion of the Project site (excluding the water quality/detention basin, which would have a bottom elevation of 629 amsl).

3.4.2 Construction Characteristics

The Project Applicant has indicated that the Project would be constructed over the course of approximately 26 months. As part of Project construction, all existing structures and improvements on the Project site would be demolished, the property would be prepared for construction and mass graded, and underground utility infrastructure would be installed. Next, surface materials would be poured and the proposed buildings would be erected, connected to the underground utility system, and painted. Lastly, fine grading would occur and landscaping and fencing/walls would be installed. The Air Quality Impact Analysis prepared for the Project by Urban Crossroads calculated that 23 haul trips (two-way) would be required to haul demolition debris from the Project site and 625 haul trips (two-way) would be required for soil export during grading operations. The estimated length of the haul trips was 20 miles. (Urban Crossroads, 2018a, p. Appendix 3.2)



Source(s): D&D Engineering, Inc. (11-26-2018)

Figure 3-13

NOT TO SCALE

CONCEPTUAL GRADING PLAN

The types and numbers of heavy equipment expected to be used during construction activities are listed in Table 3-1, *Construction Equipment Assumptions*. As is typical for a construction schedule for a facility such as the Project, construction equipment would generally operate on the Project site up to eight (8) hours per day (between the hours of 7:00 a.m. and 8:00 p.m.) on Monday through Saturday pursuant to City of Chino Municipal Code § 9.40.060(D) and § 15.44.030(A). Although the City's Municipal Code allows construction equipment to operate on the Project for a maximum of 13 hours per day, construction equipment is not in continual use and some pieces of equipment are used only periodically during a typical construction work day. Thus, eight (8) hours of daily use per piece of equipment – almost two-thirds of the daily period allowed by the City's Municipal Code – is a reasonable assumption. Should construction activities need to occur at night, such as concrete pouring activities that require air temperatures to be lower than daytime temperatures, the Project Applicant would be required to obtain authorization for nighttime work from the City of Chino pursuant to City of Chino Municipal Code § 9.40.060(D) and § 15.44.030(B).

Table 3-1 Construction Equipment Assumptions

PHASE NAME	EQUIPMENT TYPE	NUMBER OF EQUIPMENT	HOURS PER DAY
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Crawler Tractors	2	8
	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8
	Crawler Tractors	3	8
	Forklifts	3	8
	Generator Sets	1	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

Source: (Urban Crossroads, 2018a, Table 3-3)

3.4.3 Operational Characteristics

The Project would operate as a sorting/distribution hub for ground parcel delivery. The facility would operate 24 hours a day, 365 days a year. Over the course of a year, peak operations would occur during November and December, annually. During the remainder of the year, the facility is expected to operate at approximately 50-75% of its peak capacity. The Project is estimated to open as early as the Year 2020, and operations at the facility are expected to gradually ramp up over a multi-year period.

All packages would be brought to the Project site via truck[1]; the Project does not contain an air freight component. Tractor-trailers would access the Project site via the inbound guardhouse (access provided from the private driveway at the Remington Avenue / Flight Avenue intersection). Drivers would deposit loaded trailers in the inbound processing area located on the east side of the sorting/distribution building. Tractors – the front part of the truck (cabin), minus the trailer – would then immediately proceed to the outbound processing area located on the west side of the sorting/distribution building to pick up a loaded trailer bound for another facility or would deposit their tractor at the line-haul tractor parking lot (described in more detail on the following page). All tractors would exit the hub facility via the outbound guardhouse (exit provided at the Remington Avenue / Flight Avenue intersection).

Once deposited in the inbound processing area, trailers would be moved by yard trucks to docks at the sorting/distribution building for unloading. Once unloaded, the empty trailers would be moved by yard truck to the outbound processing area, either to a trailer parking space or to a loading dock to be filled with an outbound load, or to the maintenance building in the northwest corner of the site. (Maintenance activities performed on-site will include preventative and routine maintenance to trailers only – for example, replacing tires and axle repairs – no maintenance will be performed on tractors at the maintenance building.) Inside the sorting/distribution building, parcels would be manually and mechanically sorted and directed to the appropriate outbound trailer or home delivery van. The average parcel sort time (i.e., from arrival to departure from the facility) would be approximately four (4) hours; there would be no long-term parcel or materials storage on the Project site.

All Project site employees and visitors would park their personal automobiles at the parking lot adjacent to the gateway building (with the exception of line-haul drivers as described below). Access to the employee parking lot would be provided from Flight Avenue. All employees and visitors would check-in/check-out at the gateway building before entering and exiting the sorting/distribution building or truck yard.

Line-haul truck routes are set routes to/from a specific destination (not multi-stop delivery routes) where the driver returns home after each shift. The line-haul tractor lot provides a location where line-haul drivers can park their personal automobiles during a work shift, and where they can park their tractor between shifts. Because shifts start/end at different times of day, it is expected that there will be a mix of automobiles and tractors parked in the line-haul lot at all times. At the beginning of a shift, a line-haul driver would park their

[1] Pursuant to State law, on-road diesel-fueled trucks are required to comply with various air quality and greenhouse gas emission standards, including but not limited to the type of fuel used, engine model year stipulations, aerodynamic features, and idling time restrictions. Compliance with State law is mandatory and inspections of on-road diesel trucks subject to applicable State laws are conducted by the California Air Resources Board (CARB).

personal automobile at the line-haul tractor parking lot, pick up their tractor, drive to the sorting/distribution building entrance (via Flight Avenue and the private driveway at the Remington Avenue / Flight Avenue intersection), pick up a loaded trailer, and deliver packages to their destinations. At the conclusion of a shift, a driver would arrive back at the Project site, deposit their trailer at the sorting/distribution building, drive to the line-haul tractor parking lot, park their tractor, and leave the Project site in their personal automobile.

The Project would include a fueling island that dispenses diesel fuel. The fueling island would be located on the south side of the proposed sorting/distribution building, just north of the inbound/outbound guardhouses. The fueling island would contain six (6) fueling positions; fuel would be dispensed from underground storage tanks. The fueling island would not be accessible to the general public and would only be used by trucks serving the Project site.

According to a Traffic Impact Analysis prepared for the Project by Urban Crossroads, the Project is calculated to generate 3,905 daily vehicle trips (actual vehicles), including 2,642 daily passenger car trips and 1,263 daily truck trips, during long-term peak operation (refer to EIR Subsection 4.14, *Transportation/Traffic*). Also, according to a Water Supply Assessment prepared for the Project by Charles Marr Consulting, the Project is calculated to use approximately 79,000 gallons of potable water (domestic, indoor) per day and approximately 35,000 gallons of outdoor water (irrigation) per day. The Project also is estimated to generate approximately 75,2000 gallons of wastewater per day based on The Preserve Specific Plan's wastewater generation factor of 1,000 gallons per day per acre for light industrial land uses. (Refer to EIR Subsection 4.15, *Utilities and Service Systems*, for a discussion of the Project's water and wastewater use.) Based on calculations from the Project's energy report (*Technical Appendix M*), the Project's energy use is estimated at approximately 1,186,354 kilowatt hours (kWh) per year, and natural gas usage is estimated at approximately 1,019,131 thousand British thermal units per year (kBTU/yr). The sorting/distribution building and the guardhouse will be required by State law to be constructed in accordance with the California Green Building Standards Code (CalGreen), which requires the incorporation of various energy efficiency and water-saving features.

3.5 CITY REVIEW PROCESS

The proposed Project and its technical aspects have been reviewed in detail by the City of Chino. Various City departments and divisions are responsible for reviewing land use applications for compliance with City codes and regulations. These departments and divisions also were responsible for reviewing this EIR for technical accuracy and compliance with CEQA. The City of Chino departments responsible for technical review include:

- Development Services Department, Planning Division
- Development Services Department, Building Division
- Development Services Department, Engineering Division
- Public Works Department
- Chino Valley Independent Fire District

The City of Chino has primary approval responsibility for the proposed Project. As such, the City serves as the Lead Agency for this EIR pursuant to CEQA Guidelines § 15050. The role of the Lead Agency was previously described in detail in Subsection 1.4 of this EIR. The City's Planning Commission will evaluate this EIR and the Project's requested discretionary applications and make a recommendation to the City Council whether the Project's discretionary applications should be approved and this EIR should be certified. The City Council is the decision-making authority for the Project and will consider the Project along with the Planning Commission's recommendations and will make a final decision to approve, approve with changes, or deny the Project.

3.6 Related Environmental Review and Consultation Requirements

In the event the Project described herein is approved, additional discretionary and/or administrative actions would be necessary to implement the Project. Table 3-2, lists the government agencies that are expected to use this EIR and provides a summary of the subsequent actions associated with the Project. This EIR covers all federal, State, local government and quasi-government approvals which may be needed to construct or implement the Project, whether or not they are explicitly listed in Table 3-2, or elsewhere in this EIR (CEQA Guidelines § 15124(d)).

Table 3-2 Matrix of Approvals/Permits

Public Agency	Approvals and Decisions
Proposed Project – City of Chino Discretionary Approvals	
City of Chino Planning Commission	• Recommend approval, conditional approval, or denial of General Plan Amendment (PL16-0638) and, Specific Plan Amendment (PL16-0639); • Approve, conditionally approve, or deny Master Site Approval (PL16-0719), Site Approval (PL16-0720), and Special Conditional Use Permit (PL16-0721). • Recommend that the City Council reject or certify this EIR along with appropriate CEQA Findings.
City of Chino City Council	• Approve, conditionally approve, or deny General Plan Amendment (PL16-0638) and Specific Plan Amendment (PL16-0639). • Reject or certify this EIR along with appropriate CEQA Findings.
Subsequent City of Chino Discretionary and Ministerial Approvals	
City of Chino Implementing Approvals	• Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Accept public right-of-way dedications. • Approve street vacations. • Approve modifications to City Master Drainage Plan.
Other Agencies – Subsequent Approvals and Permits	
County of San Bernardino	• Grant easement for private storm drain.
County of San Bernardino Flood Control District	• Permit to connect to storm drain facilities.
Santa Ana Regional Water Quality Control Board	• Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit.
California Department of Fish and Wildlife (CDFW)	• Potential consultation with CDFW for pre-construction burrowing owl surveys.
South Coast Air Quality Management District	• Issuance of permits related to operation of on-site fuel dispenser(s).

4.0 Environmental Analysis

4.0.1 Summary of EIR Scope

In accordance with CEQA Guidelines §§ 15126-15126.4, this EIR Section 4.0, *Environmental Analysis*, includes analysis of potential direct, indirect, and cumulatively-considerable impacts that could occur from planning, constructing, and operating the proposed Project.

In compliance with the procedural requirements of CEQA, an Initial Study was prepared to determine the scope of environmental analysis for this EIR. The City of Chino received written comments regarding the EIR scope in response to the NOP issued for this EIR. Verbal comments on the EIR scope were provided by members of the public at an EIR scoping meeting. Taking all known information and public comments into consideration, 15 primary environmental subject areas are evaluated in detail in this Section 4.0, as listed below. Each subsection evaluates several specific subject matters related to the main environmental topic. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources & Tribal Cultural Resources
4.6 Geology/Soils
4.7 Greenhouse Gas Emissions
4.8 Hazards/Hazardous Materials
4.9 Hydrology/Water Quality
4.10 Land Use/Planning
4.11 Noise
4.12 Population/Housing
4.13 Public Services
4.14 Transportation/Traffic
4.15 Utilities/Service Systems

Public Resources Code (PRC) § 21100(b)(3) and CEQA Guidelines § 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Accordingly, in addition to the subject matters listed above, this EIR addresses the topic of energy conservation in Section 5.0, *Other CEQA Considerations*.

As concluded by the Project's Initial Study (included in *Technical Appendix A* to this EIR) and after consideration of all comments received by the City on the scope of this EIR and documented in the City's administrative record, two (2) environmental subjects were determined by the City to have no potential to be significantly impacted by the Project: Mineral Resources and Recreation. These two subjects are discussed briefly in Section 5.0, *Other CEQA Considerations.*

4.0.2 Scope of Cumulative Effects Analysis

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

projects creating related impacts" (CEQA Guidelines § 15130(a)(1)). As defined in CEQA Guidelines § 15355:

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

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

The summary of projections approach is used in this EIR, except for the evaluation of cumulative traffic and vehicular-related air quality, greenhouse gas, and noise impacts. The analysis of cumulative traffic impacts combines the summary of projections approach with the manual addition of past, present, and reasonably foreseeable projects. This approach was determined to be appropriate by the City of Chino because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effect for all subject areas, with the exception of traffic and vehicular-related air quality, greenhouse gas, and noise effects, which may require supplemental information not accounted for by the summary of projections. The cumulative impact analyses of vehicular-related air quality, greenhouse gas, and noise impacts, which rely on data from the Project's traffic study, inherently utilize the combined approach. With the combined approach, the cumulative impact analyses for the air quality, greenhouse gas, noise, and traffic issue areas overstate the Project's (and Project-related components') potential cumulative impacts relative to an analysis that would rely solely on the list of projects approach or solely on the summary of projections approach; therefore, the combined approach provides a conservative, "worst-case" analysis for the Project's cumulative air quality, greenhouse gas, noise, and traffic impacts.

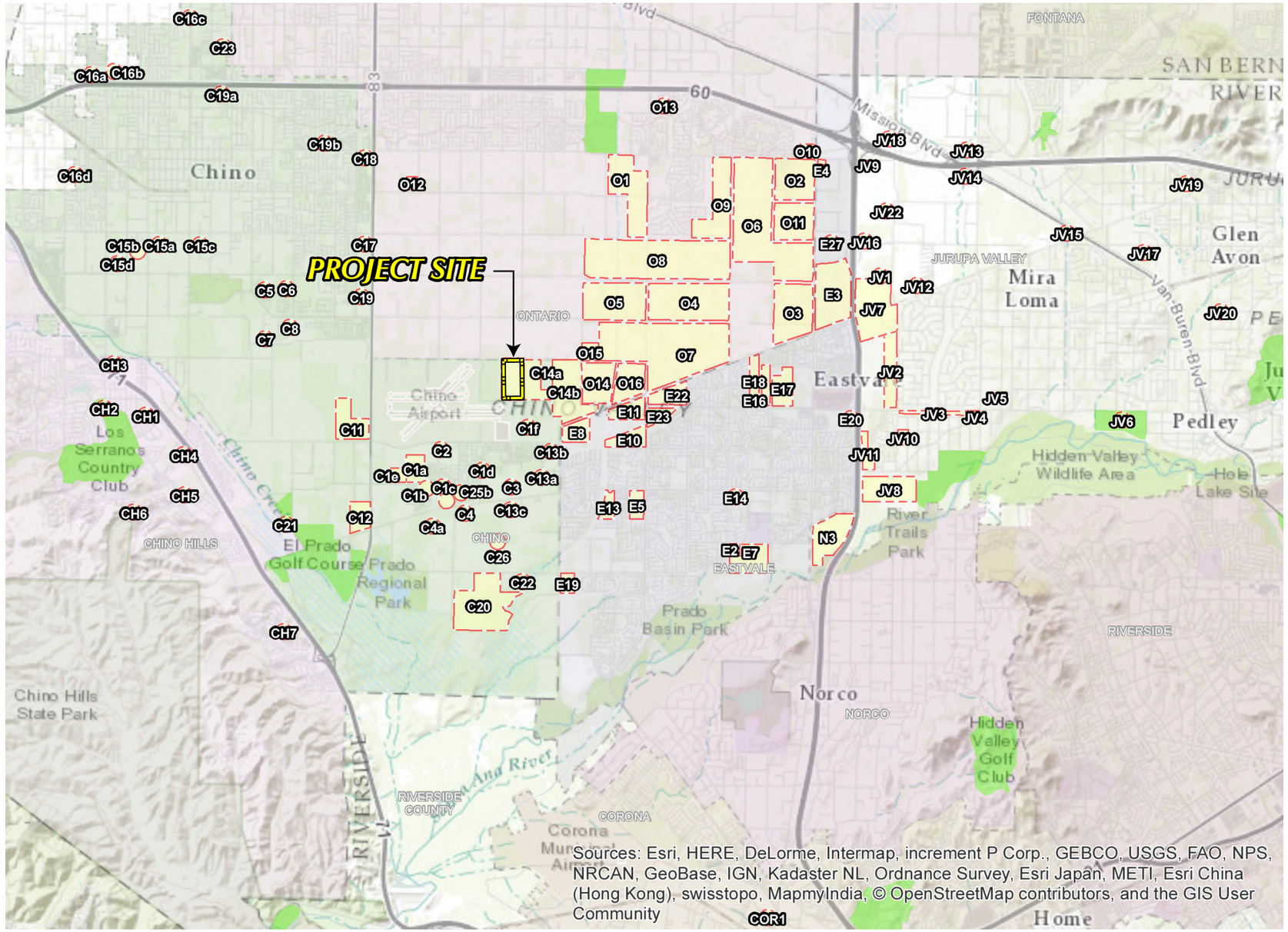
The list of projects used to supplement the summary of projections approach for the cumulative traffic impact analysis (as well as vehicular-related air quality, greenhouse gas, and noise impact analyses) includes approved and pending development projects in proximity to the Project site that would contribute traffic to the same transportation facilities as the Project, as well as several large, traffic-intensive projects farther from the Project site that have the potential to affect regional transportation facilities. This methodology recognizes development projects that have the potential to contribute measurable traffic to the same intersections, roadway

segments, and/or state highway system facilities as the proposed Project and have the potential to be fully operational in the foreseeable future. As such, the cumulative impact analysis of traffic and vehicular-related air quality, greenhouse gas, and noise impacts includes 126 other past, present, and reasonably foreseeable projects within this study area in addition to the summary of projections (Urban Crossroads, 2018e, Table 4-4). The Specific development projects included in the traffic and vehicular-related air quality, greenhouse gas, and noise cumulative impact analyses shown in Figure 4.0-1, *Cumulative Development Location Map*, and are listed in Table 4-4 of *Technical Appendix K*.

For the cumulative impact analyses that rely on the summary projections approach (i.e., all issue areas with the exception of traffic and vehicular-related air quality, greenhouse gas, and noise, as described in the preceding pages), the cumulative study area includes the City of Chino, City of Chino Hills, City of Eastvale, City of Jurupa Valley, and City of Ontario. These five cities encompass portions of southwestern San Bernardino County and northwestern Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses upper Chino Valley, which is largely bounded by the Chino Hills to the west, Interstate 15 to the east, the Prado Dam and the Santa Ana River to the south and southeast, and State Route 60 to the north. This area has historically been used for rural and/or agricultural uses, like the Project site; but, in recent decades has been developed for residential and industrial development. This study area exhibits similar characteristics in terms of climate, geology, and hydrology and, therefore, is also likely to have similar biological and archaeological characteristics as well. This study area also encompasses the service areas of the Project site's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that differ from those of the Project area, or are simply too far from the proposed Project site to produce environmental effects that could be cumulatively considerable. Exceptions include cumulative air quality analysis, which considers the entire South Coast Air Basin (SCAB) and greenhouse gas emissions and associated global climate change, which potentially affect all areas of planet Earth. Additionally, the analysis of cumulative hydrology and water quality effects considers cumulative growth within the boundary of the Santa Ana River Basin watershed.

Environmental impacts associated with buildout of the cumulative study area surrounding the City of Chino were evaluated in CEQA compliance documents prepared for the respective General Plans of each of the above-named cities. The locations where each of these CEQA compliance documents is available for review are listed below and are provided at the website addresses listed in EIR Section 7.0, *References*. All of the CEQA compliance documents listed below are herein incorporated by reference pursuant to CEQA Guidelines § 15150.

- City of Chino General Plan EIR (SCH No. 2008091064), available for review at the City of Chino Community Development Department, Planning Division, 13220 Central Avenue, Chino, CA 91710;
- City of Chino Hills General Plan EIR (SCH No. 2013051082), available for review at City of Chino Hills Community Development Department, 14000 City Center Drive, Chino Hills, CA 91709;
- City of Eastvale General Plan EIR (SCH No. 2011111061), available for review at the City of Eastvale Planning Department, 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752;
- City of Jurupa Valley General Plan EIR (SCH No. 2016021025), available for review at the City of Jurupa Valley Planning Department, 8930 Limonite Avenue, Jurupa Valley, CA 92509; and



Source(s): Urban Crossroads (02-16-2018)

NOT TO SCALE

Figure 4.0-1

CUMULATIVE DEVELOPMENT LOCATION MAP

- The Ontario Plan EIR (SCH No. 2008101140), available at the City of Ontario Planning Department, 303 East B Street, Ontario, California.

4.0.3 Analysis Format

Subsections 4.1 through 4.15 of this EIR evaluate the 15 environmental subjects warranting detailed analysis, as determined by this EIR's Initial Study and in consideration of public comment on this EIR's NOP. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's (and Project-related components') potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant.

The thresholds of significance used in this EIR are based on the thresholds presented in CEQA Guidelines Appendix G and as applied by the City of Chino to create the Project's Initial Study Checklist (included in *Technical Appendix A* to this EIR). The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

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

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

4.1 AESTHETICS

This Subsection describes the aesthetic qualities and visual resources present on the Project site and in the site's vicinity, and evaluates the potential effects that the Project may have on these resources. Descriptions of existing visual characteristics, both on-site and in the vicinity of the Project site, and the analysis of potential impacts to aesthetic resources are based on field observations and site photographs collected by T&B Planning, Inc. in January 2017 (T&B Planning, 2017); analysis of aerial photography (Google Earth, 2018); and the Project application materials submitted to the City of Chino described in Section 3.0, *Project Description*, of this EIR. This Subsection also is based on information contained in the Community Character Element of the City of Chino General Plan (Chino, 2010a), the Aesthetics section of the certified Final Program EIR prepared for the City's General Plan (SCH No. 2008091064) (Chino, 2010b), and the City of Chino Municipal Code (Chino, 2018). All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.1.1 EXISTING CONDITIONS

A. Project Site and Surrounding Area

The Project site is located in the east-central portion of the City of Chino, in the southwestern portion of the San Bernardino County. The site is located south of Merrill Avenue and west of Flight Avenue. For many decades the surrounding area has exhibited a primarily agricultural character, but the locale is currently in a state of transition to an urbanized character. Under existing conditions, some of the surrounding area remains agricultural, while other areas are urbanized. Topographically, the site is relatively flat with elevations ranging from approximately 650 feet above mean sea level (amsl) in the northern portion of the site to approximately 640 amsl in the southern portion of the Project site. There are no rock outcroppings or unique topographic features on the Project site. A windrow of tamarisk trees is located along the Project site's western boundary.

Pursuant to CEQA Guidelines § 15125, the physical environmental condition for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released on September 23, 2017. As of that approximate date, the western portion of the Project site contained two residences and a dairy farm (including ancillary dairy farm structures and improvements) and the eastern portion of the Project site contained field crops. Figure 4.1-1, *Site Photograph Key Map*, depicts the locations of five (5) vantage points that provide representative depictions of the site's visual character and aesthetic features, as seen from surrounding public viewing areas. Each of the highlighted vantage points are described below and shown on Figure 4.1-2 and Figure 4.1-3.

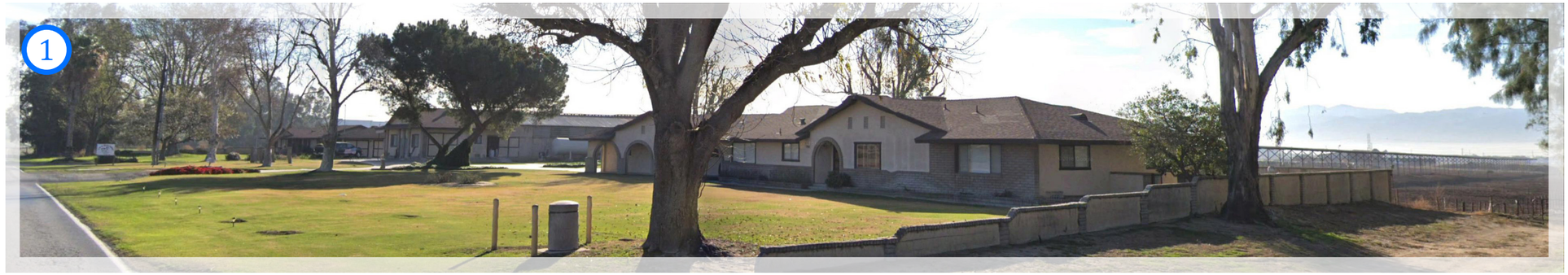
- Site Photograph 1 (Figure 4.1-2): Site Photograph 1 provides an approximately 90-degeee view from the northwestern corner of the Project site. The left-hand portion of the photograph provides a view along the Project site's northern boundary looking east. The center of the photograph provides a view across the Project site looking southeast. The right-hand portion of the photograph provides a view along the Project site's western boundary looking south. The two existing on-site residences and the existing dairy milking barn are visible in the foreground and mid-ground of the photograph. A dairy pasture (with shade structures) and the Chino Hills are visible in the background on the right-hand side of the photograph.

Source(s): ESRI, Nearmap Aerial (2018), SB County (2017)

Figure 4.1-1

SITE PHOTOGRAPH KEY MAP

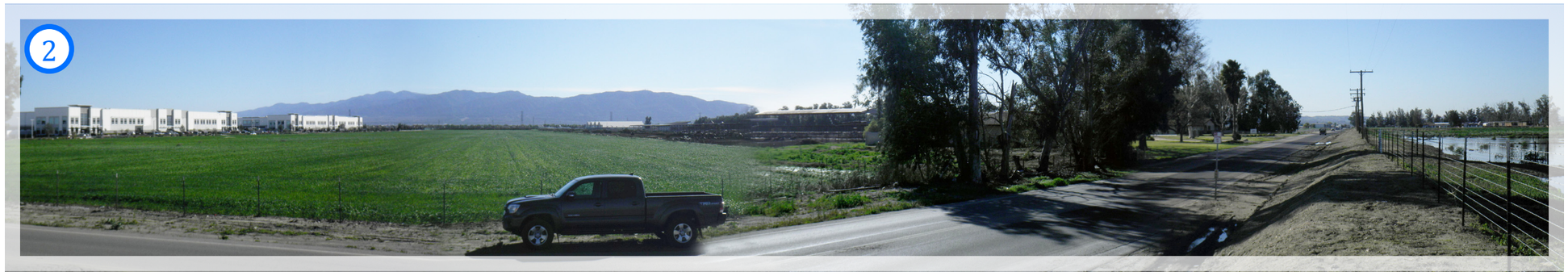
West



Southwest

Photo 1: From Northwest Corner of Project Site, along Merrill Avenue, looking West to South.

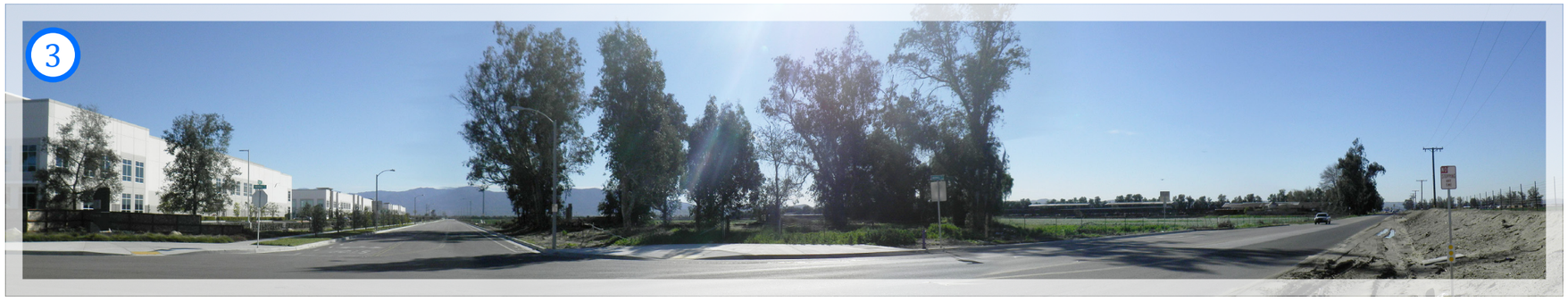
Southeast



Southwest

Photo 2: From Northern Edge of Project Site, along Merrill Avenue, looking Southeast to Southwest.

South



West

Photo 3: From Northeast Corner of Project Site, at the Intersection of Merrill Avenue and Flight Avenue, looking South to West.

Source(s): Google Earth (2018), T&B PLANNING, INC. (2017)

Figure 4.1-2

NOT TO SCALE

SITE PHOTOGRAPHS 1 - 3

- Site Photograph 2 (Figure 4.1-2): Site Photograph 2 provides an approximately 180-degree view, looking south, from the approximate midpoint of the northern Project boundary. The left-hand portion of the photograph provides a view looking east, toward Flight Avenue. The center of the photograph provides a view across the site looking south. The right-hand portion of the photograph provides a view looking west. The existing agricultural operations on the Project site (field crops and dairy farm) are visible in the left-hand and central portions of the photograph. Large, off-site warehouse buildings that are part of the Watson Industrial Park Chino development are visible on the far left-hand portion of the photograph. The Chino Hills are visible along the horizon of the center and left-hand side of the photograph.

- Site Photograph 3 (Figure 4.1-2): Site Photograph 3 provides a 90-degree view from the northeastern corner of the Project site. The left-hand portion of the photograph provides a view along the site's eastern boundary looking south. Three large warehouse buildings that are part of the Watson Industrial Park Chino development are visible off-site, along the west side of Flight Avenue. The center of the photograph provides a view across the Project site looking southwest; views into the Project site are mostly obscured at this vantage point by a stand of large trees located on the site's northeastern corner. The right-hand side of the photograph provides a view of the Project site's northern boundary, looking west. The on-site field crops and dairy pastures are partially visible on the right-hand side of the photograph. The Chino Hills are partially visible along the horizon on the left-hand side of the photograph.

- Site Photograph 4 (Figure 4.1-3): Site Photograph 4 provides a 180-degree view from the eastern boundary of the Project site. The left-hand side of the photograph provides a view looking south, toward Remington Avenue; the right-hand side of the photograph provides a view looking north, toward Merrill Avenue. The center of the photograph provides a view across the field crops on the eastern portion of the Project site; the on-site dairy pastures (including cattle shade structures) and the windrow along the western Project boundary are visible along the horizon. The Chino Hills are visible on the left-hand side of the photograph and the San Gabriel Mountains are visible on the right-hand side of the photograph.

- Site Photograph 5 (Figure 4.1-3): Site Photograph 5 provides a 180-degree view from the southeastern corner of the Project site, at the Flight Avenue / Remington Avenue intersection. The left-hand side of the photograph provides a view of the Chino Airport, which abuts the Project site on the south and west. The center of the photograph provides a view across the Project site looking northwest. The right-hand side of the photograph provides a view along the site's eastern boundary looking north (toward Merrill Avenue). The field crops and dairy pastures (including cattle shade structures) are visible from this vantage point in the midground and background of the photograph. The windrow of tamarisk trees along the western boundary of the Project site is visible – but not prominent – along the horizon. The Chino Hills are visible on the left-hand side of the photograph (south of Remington Avenue); the San Gabriel Mountains are visible on the right-hand side of the photograph.

South

North

Photo 4: From Eastern Edge of Project Site, along Flight Avenue, looking South to North.

South

Northeast

Photo 5: From Southeast Corner of Project Site, at the Intersection of Flight Avenue and Remington Avenue, looking South to Northeast.

Source(s): T&B PLANNING, INC. (2017)

Figure 4.1-3

NOT TO SCALE

SITE PHOTOGRAPHS 4 AND 5

B. Scenic Vistas and Scenic Resources

The City of Chino General Plan includes policies related to preserving views of Chino's geographic and environmental features that make Chino unique. The City of Ontario General Plan also provides policies aimed at preserving scenic resources and providing aesthetically pleasing transportation corridors. The City of Chino and City of Ontario General Plans identify the San Gabriel Mountains as an important scenic resource; the City of Chino General Plan also identifies the Chino Hills as an important scenic resource. (Chino, 2010a, p. CC-21; Ontario, n.d., p. CD1-5) The San Gabriel Mountains are located approximately 13.7 miles north of the Project site and are visible under clear weather conditions. The Chino Hills are located approximately 4.3 miles southwest of the Project site and are visible under clear weather conditions.

There are no officially-designated scenic road or highway corridors within the City of Chino or the City of Ontario (Caltrans, 2017; Chino, 2010b, p. 4.1-5; Ontario, 2009, p. 5.1-6).

C. Light and Glare

The Project site contains minimal sources of artificial, exterior lighting under existing conditions. Artificial light sources occur in the immediate vicinity of the Project site, with the most notable sources of light emanating from industrial development located east of Flight Avenue and street lights along Flight Avenue and Remington Avenue (east of Flight Avenue).

4.1.2 Applicable Environmental Plans, Policies, and Regulations

A. Local Plans, Policies, and Regulations

1. City of Chino General Plan

The Community Character Element of the City of Chino General Plan guides the design of future development and on-going improvements throughout the City. This element identifies goals, objectives, policies, and actions that will preserve the City's character while improving overall community design. The General Plan states that lighting in the City should be designed to enhance safety while minimizing light spillage onto adjacent properties and into the night sky. (Chino, 2010a)

2. The Preserve Specific Plan

The Project site is located in the northwest corner of The Preserve Specific Plan. The Preserve Specific Plan includes a set of Design Guidelines that establish the design framework that the City of Chino uses to evaluate proposed development within the Specific Plan area. The Preserve Specific Plan includes design standards that address outdoor lighting and glare that apply to all properties within the Specific Plan area. Lighting in the Specific Plan must minimize glare and must be positioned to enhance the safety of vehicular and pedestrian traffic. (Chino, 2016, p. 222)

3. City of Chino Municipal Code

The City of Chino Municipal Code Section 20.10.090 identifies outdoor lighting standards for the City. Lighting in the City of Chino is required by the Municipal Code to utilize energy efficient fixtures that do not

flash or blink and are not of high intensity of brightness. In addition, lighting shall be designed to provide safe and adequate lighting while minimizing light spillage. (Chino, 2018)

4.1.3 Basis for Determining Significance

The proposed Project would result in a significant impact to aesthetics if the Project or any Project-related component would:

a. Have a substantial adverse effect on a scenic vista;

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

c. Substantially degrade the existing visual character or quality of the site and its surroundings; or

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects that development projects could have on aesthetics/visual quality and scenic resources. The use of these thresholds for the evaluation of Project-related impacts is intended to ensure that the proposed Project's impacts to aesthetic resources are appropriately evaluated and that feasible mitigation measures are applied for any impacts that are determined to be significant. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold.

Regarding the determination of significance under Threshold "a," if the unique view of a scenic vista(s) would be blocked or otherwise substantially adversely affected as seen from a public viewing location(s), such as a public road, park, trail, and/or other publicly-owned property at which the general public is legally authorized to use or congregate, the impact will be regarded as significant. Effects to scenic vistas from private properties will not be considered significant in this EIR because the General Plans for the Cities of Chino and Ontario call for the protection of public views and the City of Chino does not have any ordinances or policies in place that protect views from privately-owned property.

Regarding the determination of significance under Threshold "c," if the character or quality of the Project area, including both publicly- and privately-owned properties, would be degraded, the impact will be regarded as significant. In this context, "degrade" will mean the introduction of physical features that would have a demonstratively inconsistent character and/or would be constructed with inferior design characteristics than currently found in the Project area, based on the independent judgment of the City of Chino.

4.1.4 Impact Analysis

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

Figure 4.1-2 and Figure 4.1-3 depict the Project site under existing conditions. As shown, the Project site consists of flat land that contains several residences, agricultural buildings and structures, cattle pasture, and

field crops. The Project site does not contribute to a scenic vista under existing conditions and neither the City of Chino General Plan nor the City of Ontario General Plan identify any scenic vistas or scenic corridors on the Project site or in the vicinity of the Project site (Chino, 2010a, p. CC-21; Ontario, n.d., p. CD1-5).

Scenic resources within and surrounding the Cities of Chino and Ontario include the San Gabriel Mountains, which are located approximately 13.7 miles north of the Project site, and the Chino Hills, which are located approximately 4.3 miles south of the Project site. Under existing conditions, views of the San Gabriel Mountains and Chino Hills are visible from the Project site and its vicinity on clear days; however, these distant landforms are not prominently visible from the Project site and its vicinity on days with high levels of atmospheric haze (which is common throughout the year).

Due to the location and orientation of the Project site, the Project only has the potential to impact public views of the San Gabriel Mountains and the Chino Hills from Merrill Avenue and Flight Avenue. From Merrill Avenue, the Project would not affect public views of the San Gabriel Mountains because the San Gabriel Mountains are located north of Merrill Avenue and the Project's development activities would occur to the south of Merrill Avenue. Relative to existing conditions, the Project would diminish views of the lower elevations of the Chino Hills visible from Merrill Avenue; however, the Project's effect is determined to be less than significant because existing development and landscaping on the Project site already obstructs views of the Chino Hills along a majority of the site's frontage with Merrill Avenue. Also, construction of the Project would still allow for views of the Chino Hills to be seen along the horizon because the height of the Project's buildings would be substantially lower than the elevations of the Chino Hills and the proposed buildings would be set back a sufficient distance from Merrill Avenue such that views over the tops of the buildings to the Chino Hills would still be available.

Flight Avenue is a north-south corridor that provides public views of the San Gabriel Mountains to the north and the Chino Hills to the south. The Project Applicant would install landscaping within the Flight Avenue right-of-way but would not construct any structures or permanent improvements within the right-of-way that would obstruct, detract from, or otherwise adversely affect views of the San Gabriel Mountains or Chino Hills from the Flight Avenue corridor.

Accordingly, given the fact that the Project site is not a scenic vista or located near a designated scenic resource, and that prominent, scenic views would not be obstructed by the Project, the Project would not have a substantial adverse effect on a scenic vista and a less-than-significant impact would occur.

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

The Project site is not located within or adjacent to a scenic highway corridor and does not contain trees, rock outcroppings, or historic buildings of scenic value (BFSA, 2017a, p. 5.0-2; Caltrans, 2017). The Project site is located approximately 3.2 miles northeast of a segment of SR-71 that is designated as a State-eligible scenic highway; however, due to distance and intervening topography and development, the Project would not be visible from this segment of SR-71. Accordingly, the Project site is not located within a State scenic highway corridor and implementation of the proposed Project would not have a substantial effect on scenic resources,

including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway corridor. No impact would occur.

Threshold c: Would the Project substantially degrade the existing visual character of quality of the site and its surroundings?

❑ Construction-Related Activities

Heavy equipment would be used during development of the Project site. This equipment would be visible to the immediately surrounding areas during the temporary construction period. Construction activities are a common occurrence in the urbanizing Inland Empire region of southern California and, recently, within The Preserve Specific Plan area within the City of Chino. Construction activities do not inherently or substantially degrade an area's visual quality. Except for the short-term use of cranes during building construction and lifts during the architectural coating phase, the construction equipment used on the Project site is expected to be low in height and not particularly visible to the surrounding area. Furthermore, Project-related construction activities would be temporary in nature and all construction equipment would be removed from the Project site following completion of Project-related construction activities. Based on the foregoing, Project-related changes to local visual character and quality are determined to be less than significant during temporary, short-term construction activities.

❑ Project Buildout

At buildout of the proposed Project, views of the site from the surrounding area and publicly accessible areas would change from land that was used for residential and agricultural uses (dairy farm and field crops) to that of a parcel distribution center that will feature one large parcel sorting/distribution building, several smaller ancillary buildings, truck loading docks and parking areas, automobile parking areas, landscaping, exterior lighting, signage, and a water quality/detention basin.

Although the area surrounding the Project site has previously been used for dairy and agricultural land uses, the area is in the process of transitioning to urbanized, non-agricultural uses as planned by the Chino General Plan and The Preserve Specific Plan. Existing industrial warehouse land uses that are part of the Watson Industrial Park Chino development are located to the immediate east of the Project site between Flight Avenue and Baker Avenue. The Project would be compatible with the size, scale, height, and architectural features (color, building materials, decorative elements) of the existing and planned industrial warehouse buildings in the adjacent Watson Industrial Park Chino development. The Chino Airport is located to the west and south of the Project site. The Chino Airport contains numerous industrial-style buildings and hangars that would be visually compatible with the visual character of the Project. Land to the north of the Project site is used for agriculture (dairy farms) under existing conditions but is planned for future large-scale industrial land uses by The Ontario Plan. As noted above, the local character is no longer solely defined by dairies and agriculture, as these uses now exist in relatively small pockets in The Preserve Specific Plan area rather than in large, contiguous blocks, and industrial land uses are now common within the Specific Plan area. Therefore, the introduction of industrial land uses on the Project site would not substantially degrade the character of the immediate Project area, despite the presence of agricultural land uses to its immediate south and north.

The proposed Project incorporates a number of features to enhance the aesthetic quality of the Project. The Project's architecture incorporates a mild, earth-toned color palette that would not be visually offensive and also incorporates accent elements, such as colored glass and decorative building elements at entries for visual interest. The Project's landscape plan incorporates plant species that can maintain vibrancy during drought conditions. In addition, the Project incorporates thematic landscape plantings and a monument sign at the Merrill Avenue/Flight Avenue intersection. The proposed visual features of the Project would ensure a high-quality aesthetic for the site that would be consistent with the design standards for industrial development called for by The Preserve Specific Plan. Therefore, based on the foregoing analysis, implementation of the proposed Project would not result in any significant adverse impacts to the visual quality of the Project site as would be seen from publicly accessible vantage points.

Based on the foregoing analysis, the Project would not substantially degrade the visual character or quality of the Project site or surrounding area. As such, the Project would result in a less-than-significant impact.

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

The City of Chino Municipal Code includes design standards for outdoor lighting that apply to all development in the City (Chino, 2018). The Municipal Code lighting standards govern the placement and design of outdoor lighting fixtures to ensure adequate lighting for public safety while also minimizing light pollution and glare and precluding public nuisances (e.g., blinking/flashing lights, unusually high intensity, or bright lighting). In addition, The Preserve Specific Plan includes design standards that address outdoor lighting and glare that apply to all properties within the Specific Plan area. The proposed Project is designed to adhere to the requirements of the City of Chino Municipal Code and The Preserve Specific Plan. Future implementing permits and approvals (i.e., building permits) would be required to demonstrate compliance with these standards. Compliance would ensure that the proposed Project does not produce substantial amounts of light or glare from artificial lighting sources that would adversely affect the day or nighttime views of the surrounding area.

4.1.5 Cumulative Impact Analysis

As noted under the discussion of Threshold "a," the Project site is flat and does not contribute to any prominent scenic vistas under existing conditions. Views of the San Gabriel Mountains and Chino Hills are available in the Project area; however, such views are available throughout the cumulative study area and are not unique to the Project site's vicinity. Furthermore, development in the cumulative study area would be required to comply with the applicable policies of governing General Plans and Municipal Codes, which include policies and regulations to preserve vistas to important, designated scenic resources. Accordingly, with buildout of the proposed Project and other developments within the Project's viewshed, impacts to scenic vistas would not be cumulatively significant and the Project's contributions would be less than cumulatively-considerable.

As noted under the analysis of Threshold "b," the Project site is not located within close proximity to any designated scenic routes and does not contain any scenic resources. Therefore, the proposed Project has no

potential contribute to a cumulatively significant impact to scenic resources within a designated scenic route corridor.

Under existing conditions, the area surrounding the Project site is transitioning to an urbanized aesthetic containing industrial land uses. As with the proposed Project, new development in the surrounding area would be subject to applicable development regulations and design standards, including, but not limited to the Chino Municipal Code and The Preserve Specific Plan; areas within the City of Ontario would be subject to design regulations specified by the Ontario Municipal Code. Mandatory compliance with applicable development regulations and design standards would ensure that developments would incorporate high quality building materials, site design, and landscaping to minimize the potential for adverse effects associated with changes to visual quality as seen from publicly accessible areas. Watson Industrial Park Chino is located to the immediate east of the Project site and industrial style buildings and hangers on the Chino Airport property are located to the east and south; as such, an industrial park design aesthetic has already been established in the immediate vicinity of the Project site. Although the Project's proposed development of a parcel delivery facility would contribute to the ongoing transition within The Preserve Specific Plan area from an agricultural to non-agricultural aesthetic, this trend of urbanization was planned by the City of Chino and has been occurring for over 15 years. In addition, the Project's design incorporates various architectural and landscape features to enhance and/or screen views of the interior of the site from the surrounding public street system. Accordingly, Project-related impacts to the existing visual character and quality of the site and area would be less than cumulatively considerable when considered in context with the existing visual character and quality of the Project site's surroundings, which is transitioning to an urbanized environment.

With respect to potential cumulative light and glare impacts, the Project would be required to comply with City of Chino Municipal Code § 20.10.090 and applicable design guidelines from The Preserve Specific Plan, which sets standards for exterior lighting/fixtures. The restriction on unshielded light fixtures and "spill over" lighting enforced by these lighting regulations has the effect of minimizing light and glare that would affect daytime views and/or create sky glow. Additionally, development projects with artificial light sources in surrounding jurisdictions would be required to comply with the light reduction requirements applicable in their respective jurisdiction. Although cumulative development in the Project's surrounding area is expected to introduce new sources of artificial lighting and potentially reflective materials, the required compliance with the applicable municipal code requirements would ensure that future cumulative development does not introduce substantial sources of artificial lighting or glare. As such, the Project would not contribute to cumulatively-considerable, adverse impacts to the existing daytime or nighttime views of the Project site or its surroundings.

4.1.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not substantially affect a scenic vista. The Project site does not contain any designated scenic vistas or scenic corridors. The Project would not substantially affect views of the San Gabriel Mountains and Chino Hills from nearby public viewing areas; views of these landforms would remain visible from public viewing areas after implementation of the Project.

Threshold b: No Impact. The Project would not damage scenic resources within a State scenic highway corridor. There are no State-designated or eligible scenic highways within the vicinity of the Project site and the Project site does not contain scenic resources such as trees of scenic value, rock outcroppings, or historic buildings that are visible from a State scenic highway.

Threshold c: Less-than-Significant Impact. The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the Project would change the visual character of the site from dairy operations to a parcel delivery facility, the Project's surrounding area is transitioning from agricultural to non-agricultural, urbanized land uses. Furthermore, the Project Applicant proposes a number of site design, architectural, and landscaping elements consistent with the requirements of The Preserve Specific Plan that would ensure the Project's character is consistent with the planned vision for the Specific Plan area. Impacts to visual character and quality would be less than significant.

Threshold d: Less-than-Significant Impact. The Project would not create substantial light or glare. Compliance with The Preserve Specific Plan design guidelines and City of Chino Municipal Code requirements for artificial lighting would ensure less-than-significant impacts associated with light and glare affecting day or nighttime views in the area.

4.1.7 Mitigation

Impacts would be less than significant; therefore, mitigation would not be required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

The following analysis is primarily based on information obtained from the United States Department of Agriculture (USDA), the California Department of Conservation (CDC), the County of San Bernardino, the City of Chino General Plan, and a report titled "Agricultural Resources Assessment for the Chino Parcel Delivery Facility Project," dated October 4, 2017 and prepared by T&B Planning, Inc. (see *Technical Appendix B*). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.2.1 EXISTING CONDITIONS

A. Agricultural Resources

1. Regional Agricultural Setting

The City of Chino and the larger San Bernardino County area have been used historically for agricultural (row crops and orchards) and dairy land uses. According to the San Bernardino County Department of Agriculture (SBCDA) *2015 Crop Report*, the top three categories of agricultural resources in San Bernardino County (by value) are milk, eggs, and cattle and calves (meat). The total production value for the "west end south" county region, which includes the City of Chino Hills, and parts of Chino and Ontario, was estimated at approximately $335 million in 2015, which represents nearly three quarters (72.2%) of the County's total gross value of agricultural production for the year. The livestock and poultry commodity group, which includes milk, eggs, and chicken, accounted for 87.2% of the production value in the "west end south" County region, and over half (62.9%) of the production value for the County. In 2015, the total gross value of agricultural production in San Bernardino County totaled approximately $464 million, which represented a decrease of approximately $64 million from the previous year. (SBCDA, 2015) According to the City of Chino General Plan, the decline of agricultural production in San Bernardino County is expected to continue as the region becomes more urbanized (Chino, 2010a, p. OSC-8).

The CDC reports that agricultural lands face continuing pressure from urbanization, foreign competition, and rising production costs. According to the CDC's "California Farmland Conversion Report, 2015," San Bernardino County as a whole experienced a net loss of 840 acres of "Important Farmland" between 2010 and 2012, representing a decline of 3.7% over that two-year time period (CDC, 2015, Table A-28). During the prior reporting period (between 2008 and 2010), the amount of "Important Farmland" lost in San Bernardino was even more substantial – a net loss of 2,565 acres – which represented a 10.1% decline over that two-year period (CDC, 2014, Table A-28). "Important Farmlands" in this report include Prime Farmland, Statewide Important Farmland, Unique Farmland, and Farmland of Local Importance (refer to "Farmland Classification Designations" later in this section for a description of each farmland type).

2. *Local Agricultural Setting*

Under existing conditions, the Project site is used for non-conforming agricultural operations (dairy and field crops)[1]. The western portion of the site is occupied by two residences, two dairy operations that house approximately 700 head of cattle, several agricultural support buildings (e.g., cattle pens and structures for shelter, feed, and water). The eastern, portion of the site is primarily occupied by cultivated fields used to grow cattle feed.

The area surrounding the Project site is in the process of transitioning from cropland and dairy land uses to employment-generating land uses. An 11-building industrial park called Watson Industrial Park Chino is nearing the completion of construction to the east of the Project site and additional employment-generating land uses have been approved (or are under construction) southeast of the Project site. Notwithstanding, existing dairy operations are in operation immediately southeast of the Project site (adjacent to the southeast corner of the Remington Avenue / Flight Avenue intersection) and north of the Project site (north of Merrill Avenue, in the City of Ontario). In addition, the fields west of the Project site (on Chino Airport property) are used to grow sod.

3. *Agriculture Productivity Potential*

A property's agricultural productivity potential is primarily determined by the quality of the site's soils. High-quality, productive soils have a higher likelihood to correspond with an important agricultural resource than do low-quality soils. The Project site's soil types, and their respective agricultural productivity rankings, are discussed on the following pages.

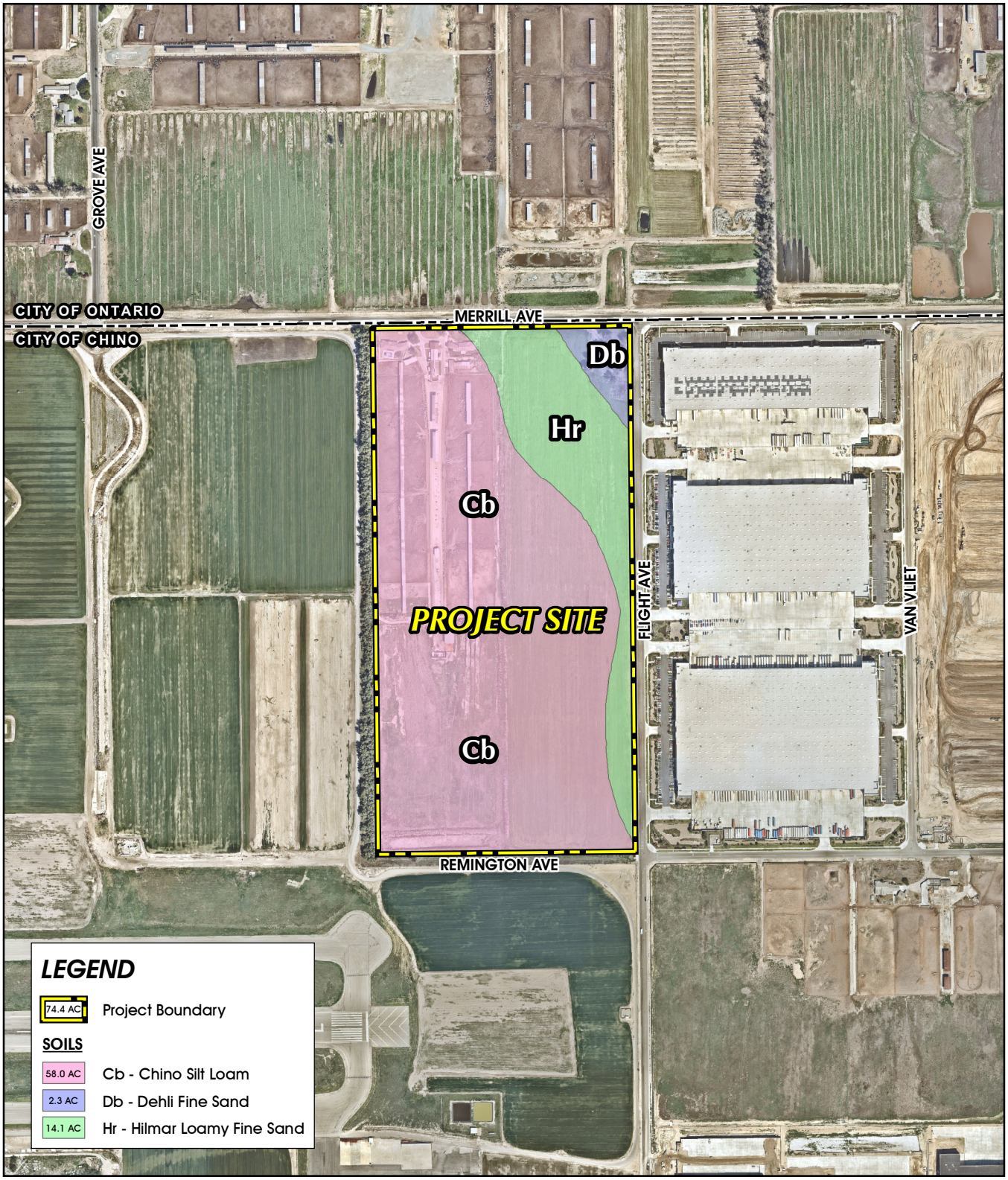
❑ Soil Types

Figure 4.2-1, *Soils Map*, illustrates the distribution of soils across the Project site. The mapping symbols shown on Figure 4.2-1 correspond to the United States Department of Agriculture (USDA) soil series classifications. Provided below is a description of the soils found on the Project site (USDA, n.d.).

Cb – Chino Silt Loam. This soil comprises approximately 78.0 percent of the Project site (approximately 58.0 acres). This soil type is characterized as somewhat poorly drained and permeability is moderately slow and are, generally, found on basin floors and flood plains with 0 to 2 percent slopes. This soil type has severe limitations for crop production because it is shallow, droughty, and/or stony.

Db – Delhi Fine Sand. Approximately 3.1 percent of the Project site (approximately 2.3 acres) contains Delhi Fine Sand soils. Soils of this type are somewhat excessively drained and largely composed of sandy alluvium materials derived from granite. This soil is susceptible to erosion and has very severe limitations that restrict the choice of plants or that require very careful management. Delhi Fine Sand soils are generally found within alluvial fans with 0 to 2 percent slopes.

[1] As noted in EIR Section 2.0, *Environmental Setting*, a dairy farm was operational on the western portion of the Project site at the time the NOP for this EIR was published on September 23, 2017, but has since ceased operation. The analysis presented in this EIR section (and elsewhere throughout the EIR) assumes the Project site contains an active dairy because the dairy was operational at the time the site's "existing conditions" were established upon publication of the NOP.



Source(s): ESRI, Nearmap Aerial (2018), NRCS (2003), SB County (2017)

Figure 4.2-1

SOILS MAP

Hr – Hilmar Loamy Fine Sand. Approximately 19 percent of the Project site (approximately 14.1 acres) contains Hilmar Loamy Fine Sand soils. This soil is found within alluvial fans and alluvial plains with 0 to 2 percent slopes. Hilmar Loamy Fine Sand soils are somewhat poorly drained and water movement in the most restrictive layer is moderately low. This soil type has severe limitations for crop production because it is shallow, droughty, and/or stony.

❑ Storie Index

The Storie Index is a rating system first developed by R. Earl Storie in 1933 that determines the value of farmland by evaluating the soil type on a given property. The Storie Index rating system ranks each soil according to four general factors: 1) the characteristics of the soil profile and its depth; 2) the texture of the surface soil; 3) the slope of the land on which the soil is located; and 4) other factors, including drainage, salt content, erosion, and alkali. A score ranging from 0 to 100 percent is determined for each factor, and the scores are then multiplied together to derive an index rating. Soils are graded according to their index on a scale of 1 through 6. (University of California, 1978, p. 1)

Soils of Grade 1 (excellent) rate between 80 and 100 percent and have few or no limitations that restrict their use for crops. Soils of Grade 2 (good) rate between 60 and 79 percent and have few special management needs and are suitable for most crops, but they have minor limitations that narrow the choice of crops. Grade 3 (fair) soils rate between 40 and 59 percent and are suited to a few crops or to special crops and require special management. Grade 4 (poor) soils rate between 20 and 39 percent and are severely limited for crops, and if used, it requires careful management. Grade 4 (poor) soils rate between 20 and 39 percent and are severely limited for crops, and if used, it requires careful management. Grade 5 (very poor) soils rate between 10 and 19 percent and generally are not suited to cultivated crops but can be used for pasture and range. Grade 6 (nonagricultural) consists of soils and land types that rate less than 10 percent and generally are not suited to farming. (University of California, 1978, p. 3)

The Storie Index rating for the Project site's soil types is presented on Table 4.2-1, *Project Site Soils Summary*.

❑ Land Capability Classification

Similar to the Storie Index, the Land Capability Classification (LCC) is used to determine the soil's suitability for crop production. The LCC includes eight (8) classes identified as "I" through "VII," with soils designated as "I" being the most suitable for crop production. Additionally, the LCC includes four subclasses to identify the soil's limitation, including susceptibility to erosion ("e") and limitations due to water ("w"), shallow/stony soils ("s"), or climate ("c"). (USDA, n.d.)

The LCC rating for each of the Project site's soil types is presented on Table 4.2-1, *Project Site Soils Summary*.

Table 4.2-1 Project Site Soils Summary

Map Symbol	Mapping Unit Name	Acreage	% of Project Site	Storie Index	LCC
Cb	Chino Silt Loam	58.0	78.0	69.7	IIIe
Db	Delhi Fine Sand	2.3	3.1	55.2	IVe
Hr	Hilmar Loamy Fine Sand	14.1	18.9	31.6	IIIs

Source: (T&B Planning, 2017, p. 15)

B. Forest Resources

Based on a biological survey conducted by Glenn Lukos Associates, Inc., the Project site does not contain forest land or any vegetation communities associated with forest land (GLA, 2017, p. 18).

4.2.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the state and local environmental laws and related regulations governing the protection of agricultural and forest resources.

A. State Plans, Policies, and Regulations

1. California Land Conservation Act (CLCA)

The California Land Conservation Act (CLCA) of 1965, also known as the Williamson Act (CA Gov. Code § 51200, et seq.), enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

Pursuant to Government Code § 51230, counties and cities may establish Agricultural Preserves, which define boundaries of those areas within which the city or county will be willing to enter into contracts pursuant to the CLCA. Contracts pursuant to the CLCA only are allowed for areas within established Agricultural Preserves. Agricultural Preserves generally must be at least 100 acres in size; however, a city or county may allow for lesser acreage if a finding is made that the characteristics of the agricultural enterprises in the area are unique and that the establishment of preserves of less than 100 acres is consistent with the general plan of the county or city. Once established, land uses within an Agricultural Preserve must be agricultural in nature, or other such uses that are not incompatible with agricultural uses. For lands within Agricultural Preserves, individual land owners may enter into a Contract with a county or city that would provide for the exclusion of uses other than agricultural, and other than those compatible with agricultural uses, for the duration of the Contract, even if the land is sold to a new owner. In return for entering into a Contract, the landowner is granted preferential property taxes that are based upon agricultural and related land uses rather than fair market value. Contracts may be exited at the option of the landowner or local government by initiating the process of term nonrenewal. Under the nonrenewal process, the remaining contract term (nine years in the case of an original term of ten years) is allowed to lapse, with the contract null and void at the end of the term. During the nonrenewal process, the annual property tax assessment

continually increases each year until it is equivalent to current property tax rates at the end of the nonrenewal period. Under a set of specifically defined circumstances, a Contract may be cancelled without completing the process of term nonrenewal. Contract cancellation, however, involves a comprehensive review and approval process and the payment of a fee by the landowner equal to 12.5 percent of the full market value of the property in question. (CDC, 2018; CA Gov. Code § 51200, et seq., n.d.)

The City of Chino's Williamson Act Map does not identify any active Williamson Act contracts within the Project site (Chino, 2017a).

2. Farmland Mapping and Monitoring Program (FMMP)

The goal of the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) is to provide consistent, timely, and accurate data to decision makers for use in planning for the present and future of California's agricultural land resources. To meet this goal, FMMP's objective is to provide maps and statistical data to the public, academia, and local, state, and federal governments to assist them in making informed decisions for the best utilization of California's farmland. The FMMP was established in 1982 in response to what was by then a critical need for data on the nature, location, and extent of farmland, grazing land, and urban built-up areas in the State. Government Code § 65570 mandates FMMP to biennially report to the Legislature on the conversion of farmland and grazing land, and to provide maps and data to local government and the public. The FMMP also was directed to prepare and maintain an automated map and database system to record and report changes in the use of agricultural lands. It was the intent of the Legislature and a broad coalition of building, business, government, and conservation interests that FMMP be non-regulatory, and provide a consistent and impartial analysis of agricultural land use and change in California. With this in mind, FMMP provides basic data from which observations and analyses can be made in the land use planning process. (CDC, 2004, p. 3)

Pursuant to the FMMP, all lands within California are classified into one of seven map categories. The minimum mapping unit is generally 10 acres, except as otherwise noted (CDC, 2004, p. 6). Provided below is a description of the various map categories established by the FMMP:

- **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. (CDC, 2004, p. 6)
- **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. (CDC, 2004, p. 6)
- **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. (CDC, 2004, p. 6)

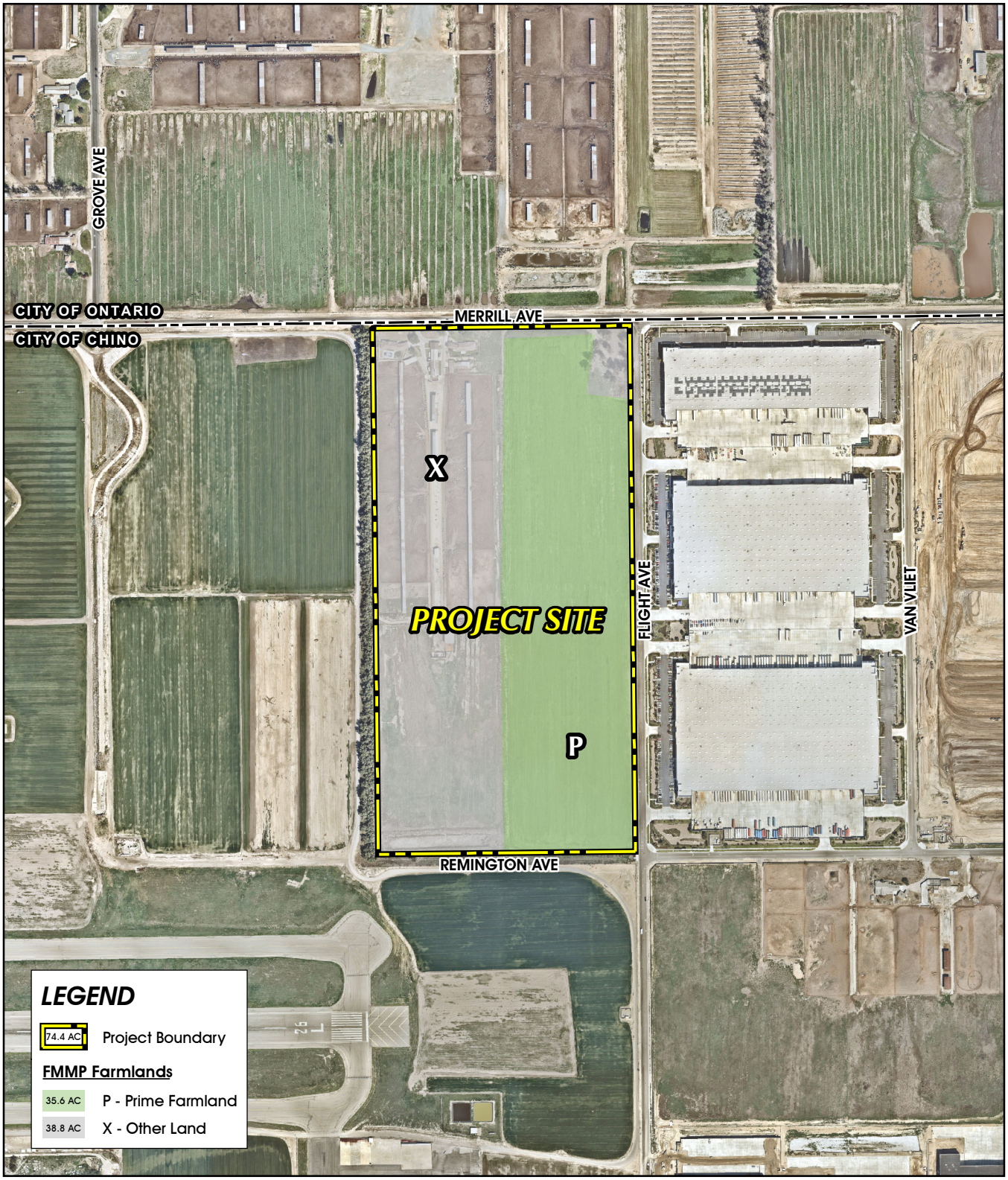
- **Farmland of Local Importance**: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. (CDC, 2004, p. 6)
- **Grazing Land**: Land on which the existing vegetation is suited to the grazing of livestock. This category 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. The minimum mapping unit for Grazing Land is 40 acres. (CDC, 2004, p. 6)
- **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, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. (CDC, 2004, p. 6)
- **Other Land**: 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 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. (CDC, 2004, p. 6)

The Project site contains "Prime Farmland" and "Other Land," as shown on Figure 4.2-2, *FMMP Farmlands Map*.

B. Local Plans, Policies, and Regulations

1. City of Chino "Right to Farm" Ordinance

Chapter 20.16 of the City of Chino's Municipal Code is the City's "Right-to-Farm" Ordinance, which states that no existing agricultural uses shall become a nuisance due to any changed condition in the surrounding area, and requires future owners of land near or adjacent to agricultural uses to be notified of all surrounding agricultural activities. This policy applies to "all legal agricultural operations within the agricultural overlay district, and other legally established agricultural operations existing at the time the property was annexed to the City of Chino." (Chino, 2018)



Source(s): ESRI, CA Dept. of Conservation (2014), Nearmap Aerial (2018), SB County (2017)

Figure 4.2-2

FMMP FARMLANDS MAP

4.2.3 Basis for Determining Significance

The proposed Project would result in a significant impact to agriculture and forestry resources if the Project or any Project-related component would:

a. *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;*

b. *Conflict with existing zoning for agricultural use, or a Williamson contract;*

c. *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));*

d. *Result in the loss of forest land or conversion of forest land to non-forest use; or*

e. *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.*

These significance thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects that development projects could have on agricultural and/or forestry resources. The CEQA Guidelines revisions of December 2018 did not alter the recommended wording of any of these thresholds.

Because the loss of farmland is not inherently a significant environmental impact, the determination regarding the significance of potential impacts to farmland under Thresholds "a" and "d" will be based on the CDC's Land Evaluation and Site Assessment (LESA) model. The LESA model is described in detail in *Technical Appendix B* to this EIR. In summary, the LESA Model is a point-based approach that uses measurable factors to quantify the relative value of agricultural land resources to ultimately determine the significance of agricultural land conversions during the CEQA process. The LESA Model is made up of two sets of factors: "Land Evaluation" (LE), which evaluates soil quality/productivity, and "Site Assessment" (SA), which measures the social, economic, and geographic components that contribute to the overall value of agricultural land. The LE and SA are scored and weighted separately to yield a total LESA score. (CDC, 1997, p. 1) The total LESA score is evaluated against the scoring thresholds summarized in Table 4.2-2, below, to determine the significance of a project's impacts to farmland resources.

Table 4.2-2 California LESA Model Scoring Thresholds

Total LESA Score	Scoring Decision
0 to 39	Not Considered Significant
40 to 59	Considered Significant only if LE and SA subscores are greater than or equal to 20 points
60 to 79	Considered Significant unless either LE or SA subscore is less than 20 points
80 to 100	Considered Significant

Source: (CDC, 1997, p. 29)

4.2.4 IMPACT ANALYSIS

Threshold a:	***Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?***

As shown on Figure 4.2-2, *FMMP Farmlands Map*, the eastern portion of the Project site contains land categorized as "Prime Farmland" by the CDC (CDC, n.d.). Accordingly, the Project would convert Farmland to non-agricultural use.

To determine the importance of the Farmland on the Project site, an Agricultural Resources Assessment report was prepared for the Project site (refer to *Technical Appendix B* of this EIR). The Agricultural Resources Assessment relied on the CDC's LESA model to quantify the significance of the Project's impacts to Farmland. The Project's LESA score is summarized on Table 4.2-3, *LESA Score Sheet*. As shown on Table 4.2-3, the Project site received a LE subscore of 32.38 and a SA subscore of 30.00, which sums to a final LESA score of 62.38. (The calculations for each LE and SA subscore are presented on Pages 15 through 21 of *Technical Appendix B*.)

Pursuant to the LESA Model scoring system, a final LESA score between 60 and 79 points corresponds to an important agricultural resource when both the LE and SA factor scores are equal to or greater than 20. Because the Project site received a final LESA score of 62.38, with both the LE and SA factor scores exceeding 20, the Project site is considered to be an important agricultural resource. Therefore, the conversion of the Project site to a non-agricultural use would be significant.

Table 4.2-3 LESA Score Sheet

	Factor Scores	Factor Weight	Weighted Factor Scores
LE Factors			
LCC	67.49	0.25	16.87
Storie Index	62.05	0.25	15.51
	LE Subscore	*0.50*	*32.38*
SA Factors			
Project Size	70	0.15	10.50
Water Resource Availability	100	0.15	15.00
Surrounding Agricultural Land	30	0.15	4.5
Protected Resource Land	0	0.05	0
	SA Subscore	*0.50*	*30.00*
		Final LESA Score	**62.38**

Source: (T&B Planning, 2017, Table 4-7.)

Threshold b:	***Would the Project conflict with zoning for agricultural use, or a Williamson Act contract?***

The Project site is not subject to a Williamson Act contract or zoned for an agricultural use (Chino, 2017b; Chino, 2016a, Figure 1A; Chino, 2017a). Accordingly, the Project would not conflict with an existing Williamson Act Contract or with existing agricultural zoning designations. No impact would occur.

Threshold c:	***Would the Project conflict with existing zoning for, or causing 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))?***
Threshold d:	***Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***

The Project site does not contain forest land and is not zoned for forestland or timberland (Chino, 2017b; Chino, 2016a, Figure 1A; GLA, 2017, p. 18). Accordingly, the Project has no potential to conflict with areas currently zoned as forest, timberland, or Timberland Production, and would not result in the rezoning of any such lands nor would result in the loss of forest land of the conversion of forest land to non-forest use. No impact would occur.

Threshold e:	***Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?***

As disclosed above under the analysis for Thresholds "c" and "d," the Project would not involve other changes in the existing environment that would result in conversion of forest land to non-forest land.

As disclosed in the analysis for Threshold "a," the Project would convert Farmland on the Project site to non-agricultural use. The Farmland on the Project site is considered an important agricultural resource pursuant to the LESA Model; therefore, the Project's conversion of on-site Farmland to non-agricultural use is determined to be a significant impact.

As shown on Figure 4.2-2, additional Farmland (Prime Farmland) is located off-site, to the north, northwest, northeast, west, and south of the Project site. However, the Project's development activities would not directly affect any of these off-site properties and all of these properties are designated by either The Preserve Specific Plan or the City of Ontario General Plan for future development as Industrial, Light Industrial, or Business Park uses (as previously illustrated on Figure 2-2, *Existing General Plan Land Use Designation* in Section 2.0 of this EIR). Because these properties are already planned for long-term, non-agricultural uses by the Cities of Chino and Ontario, respectively, the Project would not be the impetus of their conversion to non-agricultural use (should these properties be converted to non-agricultural uses in the future). Notwithstanding, pursuant to Chapter 20.16 of the City of Chino's Municipal Code ("Right-to-Farm"), should any Farmland in the Project vicinity be under active cultivation at the time the Project is implemented, the Project Applicant would be required to notify future occupants of the Project that

agricultural operations are present in the immediate area and the potential effects of those agricultural operations, such as odors, noise, dust, pesticide application, and rodent management. Chapter 20.16 also requires the Project Applicant to inform future occupants of the Project that the City will allow the continued operation of any existing agricultural uses in the surrounding area and will not consider any existing agricultural operations to be a "nuisance" to parcel delivery facility activities or other business activities occurring on the Project site. Mandatory compliance with the provisions of Chapter 20.16 of the City of Chino's Municipal Code would preclude the Project's potential to indirectly result in the conversion of off-site Farmland a non-agricultural use.

4.2.5 Cumulative Impact Analysis

The Project would convert Farmland (Prime Farmland) with a substantial agricultural importance/value to a non-agricultural use. The Preserve Specific Plan EIR (SCH No. 2000121036) concluded that implementation of The Preserve Specific Plan would contribute to significant cumulative losses of prime farmlands and other important farmlands within the Chino Basin Dairy Area (CBDA). The CBDA was defined in The Preserve EIR as containing the Cities of Chino, Ontario, Eastvale, Corona, and portions of Riverside County, and The Preserve EIR concluded that when combined with other reasonably foreseeable development within the CBDA, there would be a significant cumulative loss of agricultural productivity within the CBDA region (Chino, 2003, p. 5.2-11). Since certification of The Preserve EIR, additional projects have been approved or are reasonably foreseeable that would contribute to the cumulative loss of Farmland within the CBDA. Thus, the Project's conversion of Farmland to non-agricultural use represents a cumulatively-considerable impact on agricultural resources within the CBDA.

The Project site does not have a Williamson Contract nor does the Project conflict with zoning of agricultural use. Accordingly, the Project would not have cumulative significant impact due to conflicting with a Williamson Contract or zoning of agricultural use. Additionally, there are no forest lands, timberlands, or Timberland Production zones on the Project site or in the Project site's vicinity, nor are any nearby lands under active production as forest land. Therefore, cumulatively significant impacts to forest land would not occur and the Project has no potential to result in a cumulatively-considerable impact to the loss of these lands.

4.2.6 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project would convert land designated as Prime Farmland by the California Department of Conservation with substantial agricultural production value to non-agricultural use. The loss of the Farmland on the Project site would be a significant direct impact and also would be cumulatively considerable in consideration of the past, ongoing, and projected future loss of farmland in the CBDA.

Threshold b: No Impact. The Project site is not subject to a Williamson Act Contract and is not zoned for agricultural use; therefore, the Project would not conflict with a Williamson Act Contract or agricultural zoning.

Threshold c: No Impact. The Project site is not zoned for forest land; therefore, the Project would not conflict with any zoning for forest land resources.

Threshold d: No Impact. There are no forest lands, timberland, or Timberland Production-zoned land on the Project site; therefore, the Project would not result in the loss of forest land or conversion of forest land to non-forest use.

Threshold e: Significant Direct and Cumulatively-Considerable Impact. Implementation of the Project would not involve other changes to the existing environment, which, due to their location or nature, could result in conversion of off-site Farmland, to non-agricultural use or conversion of forest land to non-forest use. The Project would convert Prime Farmland located on the eastern portion of the Project site to non-agricultural use, which is a significant direct and cumulatively considerable impact.

4.2.7 Mitigation

There is no feasible mitigation for the Project's conversion of Farmland to non-agricultural uses.

In the case of the Project, compensatory mitigation (i.e., the acquisition of off-site property and placement of such property into permanent agricultural easements) does not meet any of the definitions of mitigation as provided by CEQA Guidelines § 15370. Specifically, off-site mitigation would not result in an avoidance of the impact by limiting the Project's scope (§ 15370[a]) and would not minimize impacts to Farmland "by limiting the degree or magnitude of the project and its implementation" (§ 15370[b]). Placing existing off-site agricultural lands into a conservation easement also would not rectify the Project's impacts to Farmland by "repairing, rehabilitating, or restoring the impacted environment" (§15370[c]), given that such a conservation easement would encompass lands that already are suitable for, if not actively being used for, agricultural production. Such mitigation also would not meet the definition of CEQA Guidelines § 15370[d] by "reducing or eliminating the impact over time by preservation and maintenance operations during the life" of the Project. Finally, because no new agricultural lands would be created, off-site agricultural easements would not result in the replacement or establishment of "substitute resources or environments" (§ 15370[e]). Therefore, the City of Chino finds that compensatory mitigation for impacts to Farmland is not a viable form of mitigation pursuant to CEQA Guidelines § 15370. There are additional reasons why off-site mitigation would not be feasible. Agricultural lands within the general Project area are subject to the same market conditions and challenges that other local agricultural operations have faced before making the decision to cease operating or relocate; namely market pressures related to urbanization, increasing expenses, and declining profitability. As discussed in the General Plan EIR (SCH No. 2008091064), similar agriculture operations either are in the process of converting to urbanized land uses, or are relatively small and surrounded by urban development on all sides. As development in the City of Chino continues, these locations will become less viable for agriculture, and significant agricultural operations are not likely to continue. Other agricultural lands within the City that are not suitable for conversion to non-agricultural uses are typically located below the 566-foot elevation (i.e., within the Prado Dam inundation area), are habitat conservation areas, and/or are controlled by the United States Army Corps of Engineers or other public agencies. Therefore, off-site mitigation would be economically infeasible, or would be precluded due to the unavailability of appropriate mitigation land. Case law supports the finding that a city need not require

mitigation where the EIR noted the long-term trend in agricultural land conversion due to development pressures in the region and concluded that mitigation was not feasible[2].

In view of the fact that compensatory mitigation for impacts to Farmland is not feasible in this circumstance, the only available mitigation that could substantially reduce or avoid Project impacts to Farmland would be to place all or a portion of the Project site into a permanent agricultural conservation easement. However, such mitigation would conflict with the City's long-term vision for the Project area for development with "Public" land uses in the Airport Overlay District. The Project site is identified by the adopted General Plan and The Preserve Specific Plan for development with "Public" land uses to provide local- and regional-serving public and quasi-public facilities; as such, impacts associated with the site's conversion from an agriculture use to non-agricultural use were previously evaluated and disclosed as significant and unavoidable as part of the analysis contained in the 2003 EIR for The Preserve Specific Plan and the 2010 EIR for the City of Chino General Plan. The proposed Project would not result in an increase in impacts to Farmland beyond the significant and unavoidable impacts identified as part of the 2003 EIR certified by the City of Chino for The Preserve Specific Plan and the 2010 EIR certified by the City of Chino for the City of Chino General Plan, respectively, for which the Chino City Council adopted Statements of Overriding Considerations in accordance with CEQA Guidelines § 15093.

Moreover, the City's designation of Project the site for future non-agricultural development as part of the General Plan and The Preserve Specific Plan represents an explicit policy decision by the Chino City Council. To now require the Project applicant to place all or a portion of the site into a permanent agricultural easement would conflict with the City's policies that identify the Project site for long-term development. Lead agencies have a recognized authority to reject potential mitigation measures and alternatives based on policy considerations[2].

4.2.8 Significance of Impacts After Mitigation

Threshold a & e: Significant Unavoidable Impact. Feasible mitigation measures are not available for the Project's conversion of a portion of the Project site mapped as Prime Farmland with substantial agricultural importance/value to non-agricultural use. Accordingly, the City of Chino finds that the Project's impacts to Farmland is a significant and unavoidable impact direct and cumulatively-considerable impact for which no feasible mitigation is available.

[2] See *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal. App. 4th 957, 1001 (CEQA's language allowing the agency to determine infeasibility based on "social and other considerations" demonstrates that an agency can find an alternative or mitigation measure infeasible because it is undesirable as a matter of policy.) See also *Defend the Bay v. City of Irvine* (2004), 119 CA4th 1261 (upholding City's finding that it was infeasible to impose on-site and off-site mitigation measures for project's impact to 3,100 acres of Prime Farmland because it would "impede the City from achieving its General Plan goals and objectives for housing and improving the existing jobs/housing imbalance in the City"). See also *Cherry Valley Pass Acres and Neighbors v. City of Beaumont Sunny Cal Egg Poultry Company* (2010), 190 CA4th 316 (upholding findings of infeasibility for mitigating loss of agricultural resources due to economic and social infeasibility).

4.3 AIR QUALITY

This Subsection is based, primarily, on three technical studies that were prepared by Urban Crossroads, Inc. to evaluate the Project's potential effects on local and regional air quality. The air quality impact analysis prepared for the Project is titled "Chino Parcel Delivery Air Quality Impact Analysis," dated April 30, 2018, and is included as *Technical Appendix C1* to this EIR (Urban Crossroads, 2018a). The mobile source health risk assessment prepared for the Project is titled "Chino Parcel Delivery Mobile Source Diesel Health Risk Assessment," dated April 21, 2018, and is included as *Technical Appendix C2* to this EIR (Urban Crossroads, 2018b). The last report, titled "Chino Parcel Delivery Supplemental Air Quality Assessment" and dated February 19, 2019, is included as *Technical Appendix C3* to this EIR. Refer to Section 7.0, *References*, for a complete list of reference sources used in this Subsection.

4.3.1 EXISTING CONDITIONS

A. *Atmospheric Setting*

The Project site is located in the South Coast Air Basin (SCAB, or "Basin"), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and the San Jacinto Mountains to the north and east, respectively; and the San Diego County line to the south. (Urban Crossroads, 2018a, p. 12)

B. *Regional Climate and Methodology*

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The SCAB's distinctive climate is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The SCAB is semi-arid, with average annual temperatures varying from the low-to-middle 60s, measured in degrees Fahrenheit (F); however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of the SCAB's climate. Humidity restricts visibility in the SCAB and the relative high humidity heightens the conversion of sulfur dioxide to sulfates. The marine layer provides an environment for that conversion process, especially during the spring and summer months. Inland areas of the SCAB, including where the Project site is located, show more variability in annual minimum/maximum temperatures and lower average humidity than coastal areas within the SCAB due to decreased marine influence. (Urban Crossroads, 2018a, p. 12)

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

(and its associated ultraviolet radiation) is a key factor to the photochemical reactions of air pollutants in the SCAB. (Urban Crossroads, 2018a, p. 13)

Dominant airflow direction and speed are the driving mechanisms for transport and dispersion of air pollution. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with storms moving through the region from the northwest. This period also brings five to 10 periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. During the nighttime, heavy, cool air descends mountain slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. (Urban Crossroads, 2018a, p. 13)

In the SCAB, there are two distinct temperature inversion structures that control the vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. A second inversion-type forms in conjunction with the drainage of cool air off of the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides and carbon monoxide, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, 2018a, p. 13)

C. *Air Quality Pollutants and Associated Human Health Effects*

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages (refer also to Section 2.6 of *Technical Appendix C1*).

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when there is little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO and the highest ambient CO concentrations in the SCAB are generally found near congested transportation corridors and intersections. Inhaled CO does not directly affect the lungs but affects tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin

present in the blood to form carboxyhemoglobin (COHb). Therefore, health conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. The most common symptoms associated with CO exposure include headache, nausea, vomiting, dizziness, fatigue, and muscle weakness. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency. (Urban Crossroads, 2018a, pp. 18-21)

- **Sulfur Dioxide (SO_2)** is a colorless gas or liquid. SO_2 enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X). SO_2 is a respiratory irritant to people afflicted with asthma. After a few minutes' exposure to low levels of SO_2, asthma sufferers can experience breathing difficulties, including airway constriction and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties in response to SO_2 exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. (Urban Crossroads, 2018a, pp. 19, 21-22)
- **Nitrogen Oxides (NO_X)** consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere, and reduced visibility. Of the nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring stations. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2. Short-term exposure to NO_2 can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_2 can result decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO_X than healthy individuals. (Urban Crossroads, 2018a, pp. 19, 21)
- **Ozone (O_3)** is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as

asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Children who participate in multiple outdoor sports and live in communities with high ozone levels have been found to have an increased risk for asthma. (Urban Crossroads, 2018a, pp. 19-20)

- **Particulate Matter less than 10 microns (PM_{10}) and less than 2.5 microns ($PM_{2.5}$)** are air pollutants consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols that are 10 microns or smaller or 2.5 microns or smaller, respectively. These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles is highly dependent on location, time of year, and weather conditions. The small size of PM_{10} and $PM_{2.5}$ allows them to enter the lungs where they may be deposited, resulting in adverse health effects. Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to an increase in respiratory infections, number, and severity of asthma attacks, and increased hospital admissions. Some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children, appear to be the most susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$. (Urban Crossroads, 2018a, pp. 19, 21)
- **Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs)** are a family of hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. Individual VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints. Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. (Urban Crossroads, 2018a, pp. 19, 22)
- **Lead (Pb)** is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, ambient levels of lead have not exceeded applicable air quality standards at any of the SCAQMD's regular air quality monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. Exposure to low levels of lead can adversely affect the development and function of

the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. (Urban Crossroads, 2018a, pp. 20, 22)

D. Existing Air Quality

Air quality is evaluated in the context of ambient air quality standards published by the federal and State governments. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are detailed in Table 4.3-1, *Ambient Air Quality Standards*. In California, a region's air quality is determined to be healthful or unhealthful by comparing pollutant levels in ambient air samples to the applicable NAAQS and CAAQS presented in Table 4.3-1.

1. Regional Air Quality

❑ Criteria Pollutants

The SCAQMD monitors levels of various criteria pollutants at 38 monitoring stations throughout its jurisdiction. In 2015, which is the most recent year for which detailed data was available at the time the NOP for this EIR was issued, the federal and State ambient air quality standards for ozone, PM_{10}, and $PM_{2.5}$ were exceeded on at least one day at most monitoring locations within the SCAB. Measured levels of NO_2, SO_2, CO, sulfates, and lead within the SCAB did not exceed federal or State standards in 2015. (Urban Crossroads, 2018a, p. 17)

The attainment status for criteria pollutants within the SCAB is summarized in Table 4.3-2, *SCAB Criteria Pollutant Attainment Status*.

The SCAB has been one of the most unhealthful air basins in the United States and has experienced unhealthful air quality since World War II. However, as a result of the region's air pollution control efforts over the last 60+ years, criteria pollutant concentrations in the SCAB have reduced dramatically and are expected to continue to improve in the future as State regulations become more stringent (Urban Crossroads, 2018a, p. 24). Criteria pollutant trends within the SCAB are illustrated on the graphs presented on the following pages and described in detail in Section 2.8 of *Technical Appendix C1*.

Table 4.3-1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: (Urban Crossroads, 2018a, Table 2-1)

Table 4.3-2 SCAB Criteria Pollutant Attainment Status

Criteria Pollutant	State Designation	Federal Designation
Ozone – 1 hour standard	Nonattainment	Nonattainment ("extreme")
Ozone – 8 hour standard	Nonattainment	Nonattainment ("extreme")
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment ("serious")
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Unclassifiable/Attainment
Sulfur Dioxide	Attainment	Unclassifiable/Attainment
Lead[1]	Attainment	Nonattainment (Partial)

State/Federal designations were taken from http://www.arb.ca.gov/desig/adm/adm.htm
Source: (Urban Crossroads, 2018a, Table 2-2)

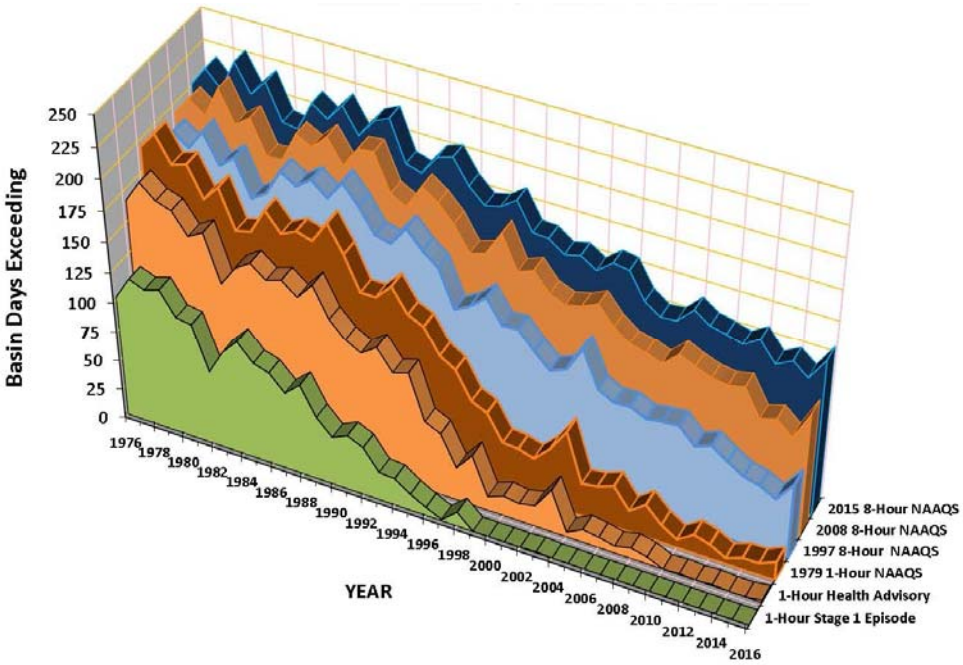
❑ Toxic Air Contaminants

Toxic air contaminants (TACs) are a classification of air pollutants that have been attributed to carcinogenic and non-carcinogenic health risks. Beginning in the mid-1980s, the California Air Resources Board (CARB) adopted a series of regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and stationary sources, such as cars, trucks, stationary sources, and consumer products. As a result of CARB's regulatory efforts, ambient concentrations of TACs have declined substantially across the state. (Urban Crossroads, 2018a, p. 29)

To reduce TAC emissions from mobile sources, CARB has required that all light- and medium-duty vehicles sold in California since 1996 be equipped with an on-board diagnostic system to alert drivers of potential engine problems (as approximately half of all tailpipe emissions result from malfunctioning emissions control devices). Also, since 1996, CARB has required the use of cleaner burning, reformulated gasoline in all light- and medium-duty vehicles. These two regulations resulted in an over 80 percent reduction in TAC emissions from light- and medium-duty vehicles in the State between 1990 and 2012 despite an approximately 30 percent increase in the State's population over that same time period. The CARB also implemented programs to retrofit diesel-fueled engines and facilitate the use of diesel fuels with ultra-low sulfur content to minimize the amount of diesel emissions and their associated TACs. As a result of CARB's programs, diesel emissions and their associated TACs fell by approximately 68 percent since 2000 despite an approximately 81 percent increase in miles traveled by diesel vehicles during that same time period. CARB's efforts at reducing stationary source TACs have been focused mainly on the dry cleaning and paint/architectural coating industries, which have resulted in a greater than 85 percent reduction of stationary source TACs across the State between 1990 and 2012. (Urban Crossroads, 2018a, pp. 30-31)

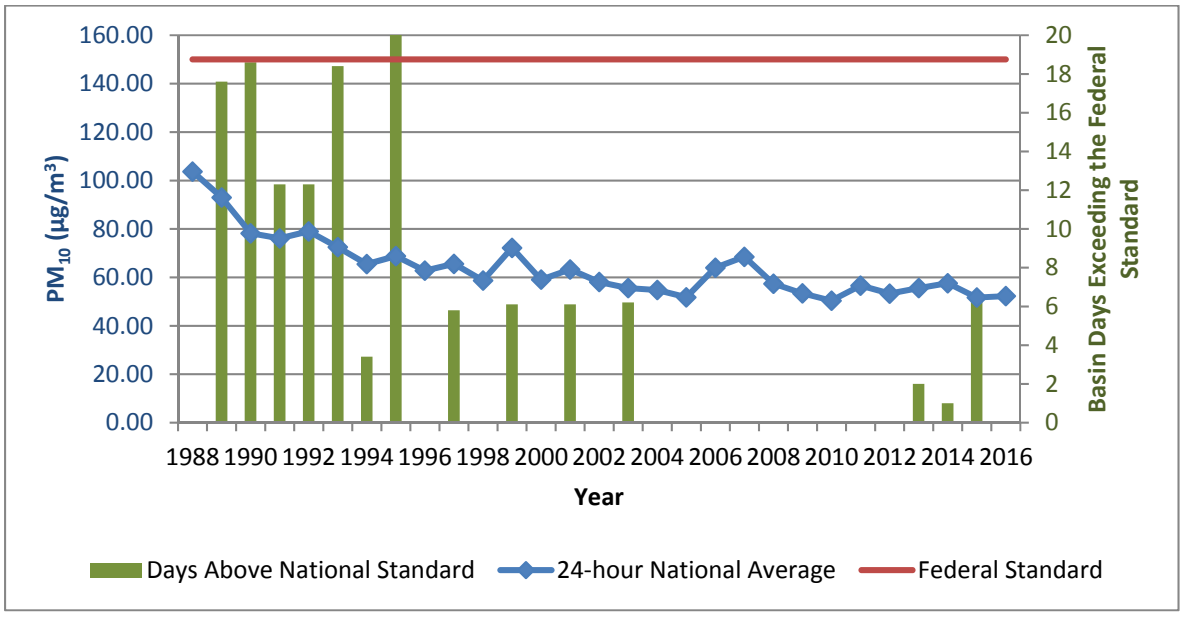
[1]In 2015, the Los Angeles County portion of the SCAB exceeded applicable federal lead standards; however, all other portions of the SCAB – including the portion of the SCAB where the Project site is located – did not exceed federal lead standards.

South Coast Air Basin Ozone Trend



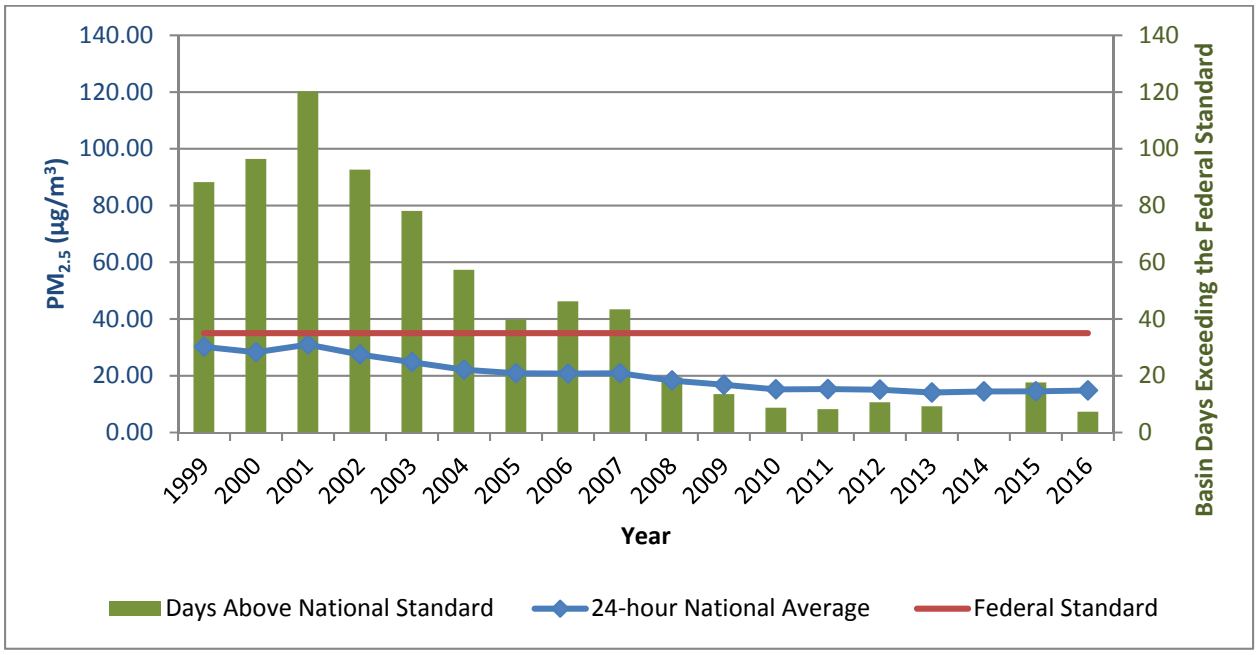
Source: (Urban Crossroads, 2018a, Table 2-4)

South Coast Air Basin PM_{10} Trend



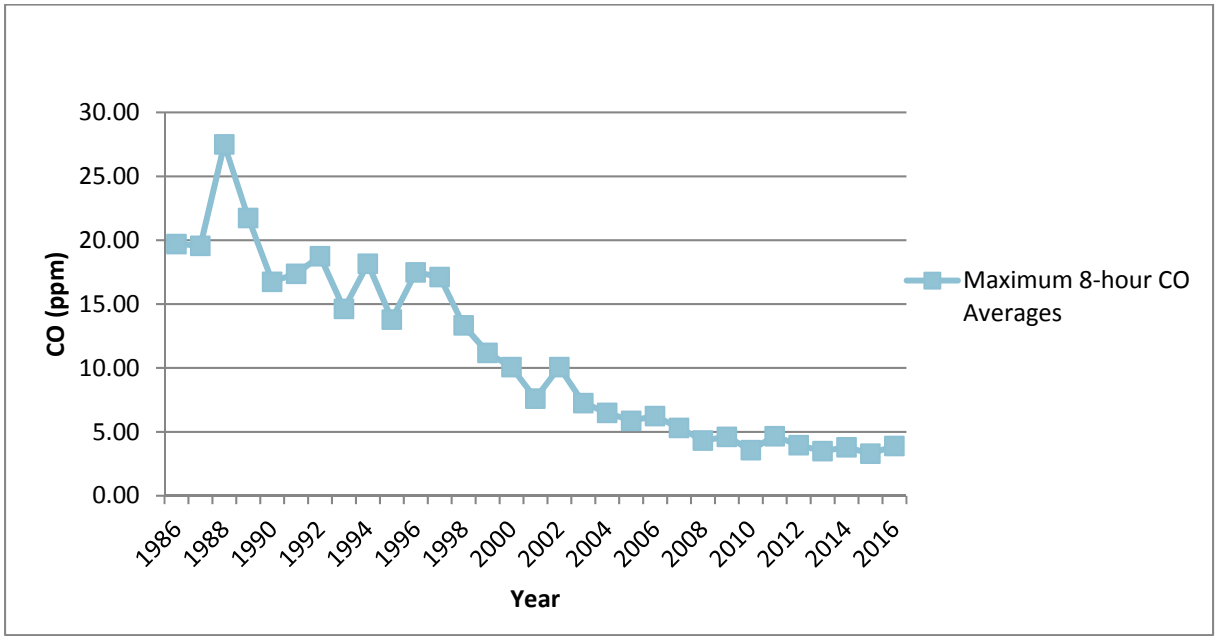
Source: (Urban Crossroads, 2018a, Table 2-5)

South Coast Air Basin $PM_{2.5}$ Trend



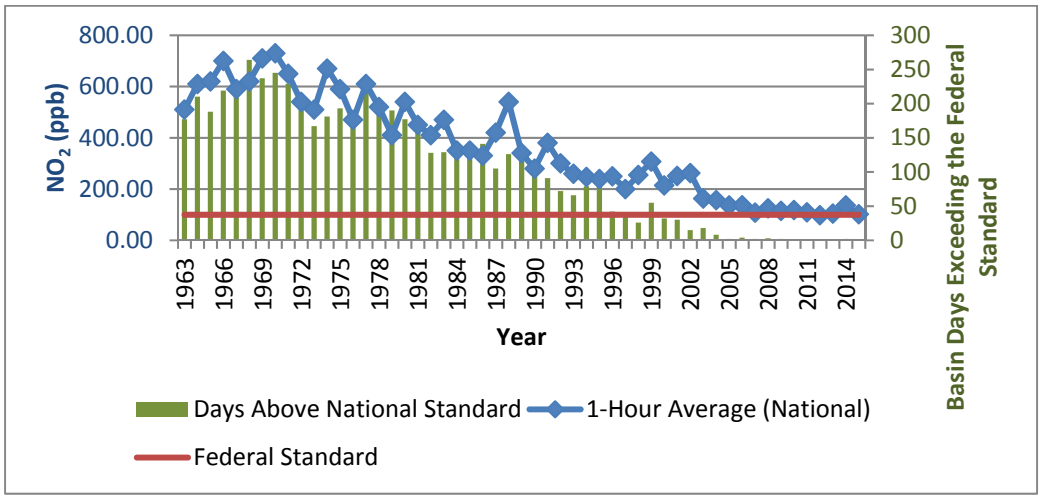
Source: (Urban Crossroads, 2018a, Table 2-6)

South Coast Air Basin CO Trend



Source: (Urban Crossroads, 2018a, Table 2-7)

South Coast Air Basin NO_x Trend



Source: (Urban Crossroads, 2018a, Table 2-8)

In 2000, the SCAQMD prepared a comprehensive urban toxic air pollution study to evaluate the TAC concentration levels in the SCAB and their associated health risks, called *MATES-II (Multiple Air Toxics Exposure Study in the South Coast Air Basin)*. *MATES-II* showed the average excess cancer risk within the SCAB ranging from 1,100 in one million persons to 1,750 in one million persons, with an average regional excess cancer risk of about 1,400 in one million. As part of the *MATES-II* study, the SCAQMD concluded that diesel particulate matter (DPM) accounted for more than 70 percent of the identified excess cancer risk in the SCAB (Urban Crossroads, 2018a, p. 32). The SCAQMD has updated their urban toxic air pollution survey twice since 2000, with the 2008 (*MATES-III*) and 2014 updates (*MATES-IV*) showing reductions in the average excess cancer risk within the SCAB relative to *MATES-II*. The current version of the urban toxic air pollution survey, *MATES-IV*, is the most comprehensive dataset of ambient air toxic levels and health risks within the SCAB. The *MATES-IV* report estimates the average Basin-wide excess cancer risk level within the SCAB to be 418 million, an approximately 70 percent improvement from the findings of *MATES-II* report just 15 years earlier. According to SCAQMD, DPM accounts for approximately 68 percent of the total risk shown in *MATES-IV* (Urban Crossroads, 2018a, p. 32).

2. Local Air Quality

❑ Criteria Pollutants

Local air quality data was collected from the SCAQMD air quality monitoring stations located nearest to the Project site. Data was collected for the three most recent years for which data was available (2014-2016). Data for PM_{10} and $PM_{2.5}$ was obtained from the Southwest San Bernardino Valley monitoring station; data for O_3, CO, and NO_2 was obtained from the Northwest San Bernardino monitoring station. (Urban Crossroads, 2018a, p. 17) Ambient air pollutant concentrations in the Project area are summarized in Table 4.3-3, *Project Area Air Quality Monitoring Summary*.

Table 4.3-3 Project Area Air Quality Monitoring Summary

Pollutant	Standard	Year		
		2014	2015	2016
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.126	0.136	0.156
Maximum 8-Hour Concentration (ppm)		0.101	0.106	0.116
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	34	49	53
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	60	69	89
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	1	2	10
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	42	53	88
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	--	--	--
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		3.0	2.1	1.7
Maximum 8-Hour Concentration (ppm)		1.2	1.3	1.3
Nitrogen Dioxide (NO_2)				
Maximum 1-Hour Concentration (ppm)		0.074	0.072	0.060
Annual Arithmetic Mean Concentration (ppm)		0.017	0.016	0.017
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})				
Maximum 24-Hour Concentration (µg/m3)		67	--	--
Number of Samples		--	--	--
Number of Samples Exceeding State Standard	> 50 µg/m^3	3	--	--
Number of Samples Exceeding Federal Standard	> 150 µg/m^3	0	--	--
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)				
Maximum 24-Hour Concentration (µg/m^3)		38.4	52.7	44.14
Annual Arithmetic Mean (µg/m^3)		--	14.5	14.7
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m^3	1	10	6

-- = data not available from SCAQMD or ARB
Source: (Urban Crossroads, 2018a, Table 2-3)

❑ Toxic Air Contaminants

As part of preparation of the *MATES-IV* study, the SCAQMD collected toxic air contaminant data at ten fixed sites within the SCAB. None of the fixed monitoring sites are located within the vicinity of the Project site; however, *MATES-IV* extrapolates the excess cancer risk levels throughout the SCAB using mathematical modeling for specific geographic grids. *MATES-IV* estimates an excess carcinogenic risk ranging between 780.30 and 973.08 in one million for the Project area. (Urban Crossroads, 2018a, p. 32)

4.3.2 Applicable Environmental Plans, Policies, and Regulations

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

A. Federal Plans, Policies, and Regulations

1. Federal Clean Air Act

The Clean Air Act (CAA; 42 U.S.C. § 7401 *et seq.*) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants, which include O_3, CO, NO_x, SO_2, PM_{10}, $PM_{2.5}$, and lead. (EPA, 2017b)

One of the goals of the CAA was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The CAA was amended in 1977 and 1990 primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines. (EPA, 2017b)

The sections of the federal CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions address the urban air pollution problems of ozone (smog), carbon monoxide (CO), and particulate matter (PM_{10}). Specifically, it clarifies how areas are designated and re-designated "attainment." It also allows EPA to define the boundaries of "nonattainment" areas: geographical areas whose air quality does not meet federal air quality standards designed to protect public health. (EPA, 2017c) Mobile source emissions are regulated in accordance with the CAA Title II provisions. These standards are intended to reduce tailpipe emissions of hydrocarbons, CO, and NO_x on a phased-in basis that began in model year 1994. Automobile manufacturers also are required to reduce vehicle emissions resulting from the evaporation of gasoline during refueling. These provisions further require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. (EPA, 2017d)

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. An "area source" is any stationary source that is not a major source. (EPA, 2017b)

For major sources, Section 112 requires that EPA establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants. These emission standards are commonly

referred to as "maximum achievable control technology" or "MACT" standards. Eight years after the technology-based MACT standards are issued for a source category, EPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk. (EPA, 2017b)

2. SmartWay Program (Voluntary)

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

B. State Plans, Policies, and Regulations

1. California Clean Air Act (CCAA)

The California Clean Air Act (CCAA) establishes numerous requirements for district plans to attain state ambient air quality standards for criteria air contaminants. The CCAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the State's ambient air quality standards, the California Ambient Air Quality Standards (CAAQS), by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. Generally, the CAAQS are more stringent than the NAAQS. For districts with serious air pollution, its attainment plan should include the following: no net increase in emissions from new and modified stationary sources; and best available retrofit technology for existing sources. (SCAQMD, 2017b)

2. Air Quality Management Planning

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

3. *Truck & Bus Rule for 2010 Engines by 2023*

Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean engines are not required to be replaced until later. Pursuant to the Truck and Bus Regulation, all pre-1994 heavy trucks (trucks with a gross vehicle weight rating greater than 26,000 pounds) were to be removed from service on California roads by 2015. Between 2015 and 2020, pre-2000 heavy trucks will be equipped with PM filters and will be upgraded or replaced with an engine that meets 2010 emissions standards. The upgrades/replacements will occur on a rolling basis based on model year. By 2023, all heavy trucks operating on California roads must have engines that meet 2010 emissions standards. Lighter trucks (those with a gross vehicle weight rating of 14,001 to 26,000 pounds) must adhere to a similar schedule, and will all be replaced by 2020.

C. *Local Plans, Policies, and Regulations*

1. *SCAQMD Air Quality Management Plan*

Under existing conditions, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code § 40702 *et seq.* and the California CAA, the SCAQMD adopted an Air Quality Management Plan (AQMP) to plan for the improvement of regional air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD's most recent iteration of the AQMP was adopted in March 2017. The Final *2016 Air Quality Management Plan (AQMP)* incorporates the latest scientific and technological information and local and regional land development plans, including the Southern California Association of Governments (SCAG) *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).* The Final *2016 AQMP* is based on current emissions modeling data, recent motor vehicle emissions information, and demographic data/projections provided by SCAG. The air quality pollutant levels projected in the Final *2016 AQMP* are based on the assumption that buildout of the region will occur in accordance with local general plans and specific plans, and in accordance with growth projections identified by SCAG in its *2016 RTP/SCS.*

2. *Applicable SCAQMD Rules*

The SCAQMD Rules that are applicable to construction of the Project include, but are not limited to: Rule 1113 (Architectural Coatings); Rule 431.2 (Low Sulfur Fuel); Rule 403 (Fugitive Dust); and Rule 1186/1186.1 (Street Sweepers) (Urban Crossroads, 2018a, p. 6).

4.3.3 Methodology for Calculating Project-Related Air Quality Impacts

The California Emissions Estimator Model (CalEEMod), version 2016.3.2, was used to calculate all Project-related air pollutant emissions (with the exception of the Project operational-related localized emissions and diesel particulate matter emissions, refer to Subsection 4.3.3B, below). The CalEEMod is a statewide land use emission computer model developed for the California Air Pollution Officers Association (CAPCOA) in

collaboration with the California Air Districts, including the SCAQMD, that provides a uniform platform to quantify potential criteria pollutant emissions associated with construction and operation of land development projects. (Urban Crossroads, 2018a, p. 35)

A. *Methodology for Calculating Project Construction Emissions*

1. *Regional Pollutant Emissions*

The Project's construction activities are expected to occur over a period of approximately 26 months. The six (6) phases of construction are: 1) demolition; 2) site preparation; 3) grading; 4) building construction; 5) paving; and 6) architectural coating. Table 3-2 of *Technical Appendix C1* lists the expected duration of each phase of Project construction and analytically assumes that construction would occur between September 2018 and December 2020. This assumption represents a "worst-case" analysis scenario because construction will actually commence later than September 2018, at which time, construction equipment emission factors would be lower than those assumed in the analysis due to emission regulations becoming more stringent over time and the retirement of older (higher-polluting) equipment from construction equipment fleets over time. EIR Table 3-1, *Construction Equipment Assumptions*, previously listed the pieces of heavy equipment expected to be used during each phase of Project construction (refer to in Section 3.0, *Project Description*). The analysis assumptions referenced above are based on information provided by the Project Applicant and the experience and technical expertise of the Project's air quality technical expert (Urban Crossroads). (Urban Crossroads, 2018a, pp. 35-38)

Refer to Section 3.4 of *Technical Appendix C1* for more detail on the methodology utilized to calculate the Project's estimated construction-related regional pollutant emissions.

2. *Localized Pollutant Emissions*

Project-related localized pollutant emissions were calculated in accordance with the SCAQMD's Final Localized Significance Threshold Methodology. The localized pollutant emissions analysis relies on the same assumptions used to calculate construction-related regional pollutant emissions, as described above. Pursuant to the SCAQMD's recommended methodology, the analysis of construction-related localized pollutant emissions included the following process (Urban Crossroads, 2018a, p. 43):

The CalEEMod was utilized to determine the maximum daily on-site emissions that would occur during construction activity. The SCAQMD's Fact Sheet for Applying CalEEMod to LSTs was used to determine the maximum Project site acreage that would be actively disturbed based on the construction equipment fleet and equipment hours as estimated in the CalEEMod. (Based on the SCAQMD's methodology, the Project is estimated to disturb 3.5 acres per day during peak construction activities.) Because the Project is expected to disturb less than five acres per day during peak construction activities, the SCAQMD's screening look-up tables were utilized to determine localized pollutant concentration levels at sensitive receptor locations – defined as a place where an individual who might have respiratory difficulties could remain for 24 hours – near the Project site.

The SCAQMD's Final Localized Significance Threshold Methodology indicates that off-site mobile emissions from development projects should be excluded from localized emissions analyses. Therefore, for purposes of calculating the Project's construction-related localized pollutant emissions, only emissions included in the CalEEMod on-site emissions outputs were considered. (Urban Crossroads, 2018a, p. 43)

Refer to Section 3.6 of *Technical Appendix C1* for more detail on the methodology utilized to calculate Project construction-related localized pollutant emissions.

B. Methodology for Calculating Project Operational Emissions

1. Regional Pollutant Emissions

The Project's operational-related regional pollutant emissions analysis quantifies air pollutant emissions from mobile sources, on-site equipment sources, area sources (e.g., architectural coatings, landscape maintenance equipment), and energy sources.

Mobile source emissions are the product of the number of daily vehicle trips generated by the Project, the composition of the Project's vehicle fleet (mix of passenger cars, light-heavy-duty trucks, medium-heavy-duty trucks, and heavy-heavy duty trucks), and the number of miles driven by Project vehicles (Urban Crossroads, 2018a, p. 39). The Project's average number of daily vehicle trips and vehicle fleet mix were calculated using the SCAQMD's recommended methodology, as described in detail in EIR Subsection 4.14, *Transportation and Traffic*. For passenger car trips, a one-way trip length of 16.6 miles was assumed pursuant to the CalEEMod™ model defaults. For trucks, an average one-way trip length of 88.7 miles was derived by considering the truck trip distribution patterns disclosed in *Technical Appendix C1*. The truck trip length used in the Project's air quality analysis is more than twice the distance of the SCAQMD's typical recommendation of a 40-mile one-way trip length for trucks.

The analysis assumes that a total of eight (8) pieces of outdoor cargo handling equipment (e.g., yard trucks, hostlers, yard goats) would be used on the Project site during operation of the parcel delivery facility, of which four (4) would be diesel-powered and four (4) would be gasoline-powered (Urban Crossroads, 2018a, p. 40).

The estimated area source emissions and energy source emissions analyses for the Project rely on default inputs within the CalEEMod (Urban Crossroads, 2018a, p. 35).

Refer to Section 3.5 of *Technical Appendix C1* for detailed information on the methodology utilized to calculate the Project's operational regional pollutant emissions.

2. Localized Pollutant Emissions

The LST analysis evaluates on-site emissions sources only. However, the CalEEMod outputs do not separate on-site and off-site mobile source emissions. For purposes of analysis, on-site mobile source emissions are estimated to be equivalent to five percent (5%) of the Project's one-way vehicle trip length. Considering that for the Project's analysis the one-way trip length for passenger cars is 16.6 miles and 88.7

miles for trucks, 5% of this total would represent an on-site travel distance of approximately 0.83-mile (4,383 feet) for each passenger car and approximately 4.44 miles (23,443.2 feet) for each truck. Comparatively, the actual maximum distance a passenger car would travel through the Project's parking lot is approximately 0.20-mile while the maximum distance a truck would travel through the facility is approximately 1.5 miles. Accordingly, the 5% assumption used in the Project's analysis substantially overstates the actual localized impact of the Project's on-site mobile source emissions (Urban Crossroads, 2018a, p. 47)

Refer to Section 3.7 of *Technical Appendix C1* for detailed information on the methodology utilized to calculate the Project's operational localized pollutant emissions.

3. Diesel Particulate Matter Emissions

Project-related vehicle diesel particulate matter (DPM) emissions were calculated using emission factors for PM_{10} generated with EMFAC 2014. Refer to Section 2.2 of *Technical Appendix C2* for a detailed description of the model inputs and equations used in the estimation of the Project-related DPM emissions. (Urban Crossroads, 2018b, pp. 7-9)

The potential health risks of Project-related DPM emissions were quantified in accordance with the guidelines in the SCAQMD's "Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis." Pursuant to SCAQMD's recommendations, emissions were modeled using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) software program. Refer to Section 2.3 of *Technical Appendix C2* for a detailed description of the model inputs and equations used in the calculation of average particulate concentrations during operation of the Project. (Urban Crossroads, 2018b, pp. 13-15)

Health risks associated with exposure to DPM emissions at a given concentration are defined in terms of the probability of developing cancer or adverse, chronic non-cancer health effects as a result of exposure to DPM emissions at a given concentration. The cancer and non-cancer risk probabilities are determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. The evaluation results in a maximum health risk value, which is merely a calculation of risk and does not necessarily mean anyone will contract cancer or other non-cancer health concern as a result of the exposure. The equations and input factors utilized in the Project analysis were obtained from Office of Environmental Health Hazard Assessment (OEHHA). Refer to Section 2.4 of *Technical Appendix C2* for a detailed description of the variable inputs and equations used in the calculations of receptor population health risks associated with Project operations. (Urban Crossroads, 2018b, pp. 15-16)

In the analysis of potential DPM effects, potential cancer and non-cancer risks were calculated for the maximally exposed individual resident (MEIR), maximally exposed individual worker (MEIW), and maximally exposed individual school child (MEISC), receptors located within a 1,320-foot radius of the Project site and the Project's primary truck routes. CARB and SCAQMD emissions models indicate that 80 percent of DPM particles settle out of the air within 1,000 feet from the emissions source. Accordingly, the 1,320-foot distance used in the Project's analysis provides a conservative study area that captures the

geographic area subject to the maximum potential effect from Project-related DPM emissions. (Urban Crossroads, 2018b, p. 24) The MEIR is located approximately 2,090 feet east of the Project site, the MEIW is located immediately adjacent to the Project site's eastern boundary, and the MEISC occurs at the Cal Aero Preserve Academy (located approximately 3,700 feet south of the Project site). (Urban Crossroads, 2018b, pp. 17-18)

4.3.4 Basis for Determining Significance

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

a. *Conflict with or obstruct implementation of the applicable air quality plan;*
b. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
c. *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 (including releasing emissions which exceed quantitative thresholds for ozone precursors);*
d. *Expose sensitive receptors to substantial pollutant concentrations; or*
e. *Create objectionable odors affecting a substantial number of people.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects that development projects could have on regional and local air quality. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold. The specific criteria described below are utilized to evaluate the significance of potential air quality impacts are based on applicable local regulations and relevant federal and State performance standards.

The Project would result in a significant impact under Threshold "a" if the Project were determined to conflict with the SCAQMD *2016 AQMP*. As defined in Chapter 12, Sections 12.2 and 12.3, of the SCAQMD *CEQA Air Quality Handbook*, a Project would conflict with the *AQMP* if either of the following conditions were to occur (Urban Crossroads, 2018a, p. 52):

- The Project would increase the frequency or severity of existing NAAQS and/or CAAQS violations, cause or contribute to new air quality violations, or delay the attainment of interim air quality standards; or
- The Project would exceed the 2016 AQMP's future year buildout assumptions.

For evaluation under Thresholds "b" and "c," the Project would result in a significant direct and cumulatively-considerable impact if the Project's construction and/or operational activities exceed one or more of the SCAQMD's "Regional Thresholds" for criteria pollutant emissions. The "Regional Thresholds" established by SCAQMD for criteria pollutants are summarized in Table 4.3-4, *SCAQMD Maximum Daily*

Emissions Thresholds. (Urban Crossroads, 2018a, pp. 34-35) The CEQA Guidelines revisions of December 2018 recommended the elimination of Threshold "b", therefore, its evaluation herein in conjunction with the evaluation of Threshold "c" is appropriate.

Table 4.3-4 SCAQMD Maximum Daily Emissions Thresholds

Pollutant	Construction	Operation
Regional Thresholds		
NOx	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
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Localized Thresholds		
CO	585 lbs/day (demolition)	716 lbs/day
	668 lbs/day (site preparation)	
	684 lbs/day (grading)	
NOx	19,386 lbs/day (demolition)	25,186 lbs/day
	23,088 lbs/day (site preparation)	
	23,798 lbs/day (grading)	
PM_{10}	243 lbs/day (demolition)	69 lbs/day
	212 lbs/day (site preparation)	
	236 lbs/day (grading)	
$PM_{2.5}$	118 lbs/day (demolition)	35 lbs/day
	135 lbs/day (site preparation)	
	138 lbs/day (grading)	

Source: (Urban Crossroads, 2018a, Table 3-1)

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

- The Project's localized criteria pollutant emissions would exceed one or more of the "Localized Thresholds" listed in Table 4.3-4;
- The Project would cause or contribute to a CO "Hot Spot;" and/or

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

For Threshold "e," a significant impact would occur if the Project's construction and/or operational activities result in air emissions leading to an odor nuisance pursuant to SCAQMD Rule 402 (SCAQMD, 1976).

4.3.5 IMPACT ANALYSIS

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

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

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

Consistency Criterion No. 1 refers to violations of the NAAQS and CAAQS. Violations of the NAAQS and/or CAAQS would occur if the Project were to exceed the SCAQMD's localized emissions thresholds. As disclosed under the analysis for Threshold "d," below, the Project would not exceed the SCAQMD localized emissions thresholds during construction or long-term operation and, by extension, would not result in violations of the NAAQS or CAAQS. Accordingly, localized criteria pollutant emissions resulting from the Project's construction and operation would neither contribute substantially to an existing or potential future violation nor delay the attainment of applicable air quality standards. (Urban Crossroads, 2018a, p. 51)

- *Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP based on the years of project buildout phase.*

The air quality conditions presented in the *2016 AQMP* are based on the growth forecasts identified by SCAG in its *2016-2040 RTP/SCS*. The *2016-2040 RTP/SCS* anticipates that development in the various incorporated and unincorporated areas within the SCAB will occur in accordance with the adopted general plans for these areas. As such, development projects that propose to increase the intensity and/or use on an individual property may result in increased stationary area source emissions and/or vehicle source emissions when compared to the *2016 AQMP* assumptions. If a development project does not exceed the growth projections in the applicable local general plan, then the project is considered to be consistent with the growth assumptions in the AQMP. (Urban Crossroads, 2018a, p. 51)

Under existing conditions, the Project site is designated for "Public" land uses by the City of Chino General Plan. The Project proposes to change the existing General Plan land use designation for the Project site from "Public" to "Light Industrial," which would exceed the development intensity planned under the current General Plan. Furthermore, as discussed under the analysis for Thresholds "b" and "c," the Project would exceed the SCAQMD regional threshold for operational NO_X emissions. Accordingly, the Project would produce substantial NO_X emissions and exceed the growth projections in the City of Chino General Plan and the Project would conflict with the *2016 AQMP*. (Urban Crossroads, 2018a, pp. 51-52)

In summary, because the proposed Project does not satisfy *AQMP* Consistency Criterion No. 2, the Project is determined to be inconsistent with the *2016 AQMP*. As such, the Project would conflict with and result in the obstruction of the applicable *AQMP* and a significant impact would occur.

Threshold b: Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Threshold c: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

A. *Construction Emissions Impact Analysis*

The Project's peak construction-related emissions are summarized in Table 4.3-5, *Peak Construction Emissions Summary*. Detailed air model outputs are presented in Appendix 3.1 of *Technical Appendix C1*.

Table 4.3-5 Peak Construction Emissions Summary

Year	Emissions (pounds per day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2018	6.25	73.98	25.14	0.06	11.33	6.93
2019	6.06	70.34	36.14	0.14	11.18	6.80
2020	73.83	87.12	54.87	0.18	8.25	4.05
Maximum Daily Emissions	**73.83**	**87.12**	**54.87**	**0.18**	**11.33**	**6.93**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2018a, Table 3-4)

As shown in Table 4.3-5, the Project's peak construction-related emissions of VOCs, NO_X, CO, SO_X, and particulate matter (PM_{10} and $PM_{2.5}$) would not exceed the applicable SCAQMD regional thresholds. Accordingly, the Project would not emit substantial concentrations of these pollutants during construction and would not contribute to an existing or projected air quality violation, on a direct or cumulatively-considerable basis. Impacts associated with construction-related emissions of VOCs, NO_X, CO, SO_X, PM_{10} and $PM_{2.5}$ would be less than significant and mitigation is not required.

B. Operational Emissions Impact Analysis

The Project's operational emissions are presented in Table 4.3-6, *Peak Operational Emissions Summary*. Detailed air model outputs are presented in Appendix 3.1 of *Technical Appendix C1*.

Table 4.3-6 Peak Operational Emissions Summary

Operational Activities – Summer Scenario	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Area Source	13.12	4.53E-03	0.49	4.00E-05	1.76E-03	1.76E-03
Energy Source	0.03	0.27	0.22	1.59E-03	0.02	0.02
Mobile (Trucks)	24.46	579.60	256.22	2.11	104.436	33.46
Mobile (Passenger Cars)	4.12	5.92	85.36	0.29	33.52	9.00
Mobile (Tractor Parking)	0.91	47.84	4.45	0.07	0.11	0.04
On-Site Equipment	1.611	17.84	7.93	0.03	0.69	0.64
Total Maximum Daily Emissions	**44.24**	**651.47**	**354.67**	**2.50**	**138.78**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**
Operational Activities – Winter Scenario	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Area Source	13.12	4.53E-03	0.49	4.00E-05	1.76E-03	1.76E-03
Energy Source	0.03	0.27	0.22	1.59E-03	0.02	0.02
Mobile (Trucks)	24.41	605.26	253.87	2.11	104.43	33.46
Mobile (Passenger Cars)	3.36	6.18	68.69	0.26	33.52	9.00
Mobile (Tractor Parking)	1.03	45.80	6.71	0.06	0.11	0.05
On-Site Equipment	1.61	17.84	7.93	0.27	0.69	0.64
Total Maximum Daily Emissions	**43.57**	**675.35**	**337.92**	**2.46**	**138.78**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2018a, Table 3-5)

As shown in Table 4.3-6, the Project's peak operational-related emissions of VOCs, CO, SO_X, and particulate matter (PM_{10} and $PM_{2.5}$) would not exceed the applicable SCAQMD regional thresholds. Accordingly, the Project would not emit substantial concentrations of these pollutants during long-term operational activities and would not contribute to an existing or projected air quality violation, on a direct or cumulatively-considerable basis. Impacts associated with operational-related emissions of VOCs, CO, SO_X, PM_{10} and $PM_{2.5}$ would be less than significant and mitigation is not required.

Notwithstanding, the Project's operational NO_X emissions, which primarily are emitted from vehicle tailpipes, would exceed the applicable SCAQMD regional threshold. NO_X is a precursor for ozone, a pollutant for which the SCAB does not attain federal (NAAQS) or State (CAAQS) standards (Urban Crossroads, 2018a, p. 17) Accordingly, the Project's daily NO_X emissions during long-term operation would violate the SCAQMD regional threshold for this pollutant and would result in a considerable net increase of

a criteria pollutant for which the Project region is in nonattainment. This impact is significant and mitigation is required.

A recent Supreme Court of California decision, *Sierra Club v. County of Fresno (Friant Ranch)*, states that EIRs should relate a project's expected adverse air quality impacts to likely human health consequences or explain why it is not feasible at the time of preparing the EIR to provide such an analysis. Given that the proposed Project's implementation would result in a significant direct and cumulatively considerable impact associated with NO_X emissions under long-term operating conditions, the potential health consequences associated with this air pollutant, as well as other air pollutants associated with the Project, were considered. Although as explained below it may be misleading and unreliable to attempt to specifically quantify the health risks associated with the NO_X and other air pollutant emissions that would result the Project, the Project's air quality impact analysis (*Technical Appendix C1*) and mobile source health risk assessment (*Technical Appendix C2*) provide extensive information concerning the quantifiable and non-quantifiable health risks related to the Project's construction and long-term operation. Refer to these EIR appendices for additional information.

Specific to NOx, population-based studies suggest that long-term exposure to NOx can cause an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants). Short-term exposure can result in resistance to air flow and airway contraction in healthy subjects. Exposure also can decrease lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO_X than healthy individuals. These and other health effects associated with air pollutants that would be generated by the Project were previously described in Subsection 4.3.1C, *Air Quality Pollutants and Associated Human Health Effects*. As noted in the Brief of Amicus Curiae by the SCAQMD in the *Friant Ranch* case (hereafter, "Brief"), the SCAQMD – which has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State – indicated that quantifying specific health risks that may result from NO_X and other air pollutants from proposals like the Project would be unreliable and misleading due to the relatively small-scale of the Project (from a regional perspective), unknown variables related to pollutant generation/release and receptor exposure, and regional model limitations (SCAQMD, 2015b; Urban Crossroads, 2019, pp. 12-15). Accordingly, current scientific, technological, and modeling limitations prevent accurate and quantifiable relation of the Project's NOx and other air pollutant emissions to likely health consequences for local and regional receptors other than as presented below in Threshold "d".

Threshold d: Would the Project exposes sensitive receptors to substantial pollutant concentrations?

A. Localized Criteria Pollutant Analysis

1. Construction Analysis

Table 4.3-7, *Peak Construction Localized Emissions Summary*, summarizes the Project's localized criteria pollutant emissions during peak construction activities.

As shown in Table 4.3-7, the Project's localized NO_X, CO, and particulate matter (PM_{10} and $PM_{2.5}$) emissions would not exceed applicable SCAQMD thresholds during construction. Accordingly, Project construction would not expose any sensitive receptors to substantial criteria pollutant concentrations. Impacts would be less than significant and no mitigation would be required.

Table 4.3-7 Peak Construction Localized Emissions Summary

On-Site Demolition Emissions	**Emissions (pounds per day)**			
	NO_x	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions	**38.32**	**22.30**	**1.99**	**1.81**
SCAQMD Localized Threshold	585	19,386	243	118
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
On-Site Site Preparation Emissions	**Emissions (pounds per day)**			
	NO_x	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions	**71.70**	**23.76**	**10.99**	**6.83**
SCAQMD Localized Threshold	668	23,088	212	135
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
On-Site Grading Emissions	**Emissions (pounds per day)**			
	NO_x	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions	**65.83**	**33.93**	**6.47**	**3.91**
SCAQMD Localized Threshold	684	23,798	236	138
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2018a, Table 3-7)

2. Operational Analysis

Table 4.3-8, *Peak Operational Localized Emissions Summary*, summarizes the Project's localized criteria emissions during peak operational activities.

Table 4.3-8 Peak Operational Localized Emissions Summary

Peak Operational Emissions	**Emissions (pounds per day)**			
	NOx	**CO**	**PM10**	**PM2.5**
Maximum Daily Emissions	**32.83**	**18.41**	**0.13**	**6.97**
SCAQMD Localized Threshold	716	25,185	69	35
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2018a, Table 3-8)

As shown in Table 4.3-8, the Project would not exceed the applicable SCAQMD thresholds for localized NO_X, CO, and particulate matter (PM_{10} and $PM_{2.5}$) emissions during long-term operation. Accordingly, Project operation would not expose any sensitive receptors to substantial criteria pollutant concentrations. Impacts would be less than significant and no mitigation is required.

B. CO Hot Spot Impact Analysis

A CO "hot spot" is an isolated geographic area where localized concentrations of CO exceeds the CAAQS one-hour (20 parts per million) or eight-hour (9 parts per million) standards. A Project-specific CO "hot spot" analysis was not performed because CO attainment in the SCAB was thoroughly analyzed as part of SCAQMD's *2003 AQMP* and the *1992 Federal Attainment for Carbon Monoxide Plan (1992 CO Plan)*. As identified in the SCAQMD's *2003 AQMP* and the *1992 CO Plan*, peak CO concentrations in the SCAB were the byproduct of unusual meteorological and topographical conditions and were not the result of traffic congestion. For context, the CO "hot spot" analysis performed for the *2003 AQMP* recorded a CO concentration of 9.3 parts per million (8-hour) at the Long Beach Boulevard/Imperial Highway intersection in Los Angeles County; however, only a small portion of the recorded CO concentrations (0.7 parts per million) were attributable to traffic congestion at the intersection. The vast majority of the recorded CO concentrations at the Long Beach Boulevard/Imperial Highway intersection (8.6 parts per million) were attributable to ambient air concentrations. In comparison, the busiest intersections in the Project site vicinity would not experience peak congestion levels comparable to the congestion levels observed at the Long Beach Boulevard/Imperial Highway intersection. Furthermore, ambient CO concentrations in the Project site vicinity were most recently recorded at 1.4 parts per million. Based on the relatively low traffic congestion levels, low existing ambient CO concentrations, and the lack of any unusual meteorological and/or topographical conditions in the Project site vicinity, the Project is not expected to cause or contribute to a CO "hot spot." (Urban Crossroads, 2018a, pp. 48-50) Impacts would be less than significant and mitigation is not required.

C. Toxic Air Contaminant Emissions Impact Analysis

Based on the typical operations expected at the proposed parcel distribution facility, which does not include smoke stacks or other stationary point-sources of air pollutant emissions, the Project site would not generate stationary emissions of toxic air contaminants. However, the Project's operational activities would generate/attract diesel-fueled trucks. Diesel-fueled trucks produce DPM, which is a toxic air contaminant and is known to be associated with acute and chronic health hazards – including cancer. Project-related DPM health risks are summarized below. Detailed air dispersion model outputs and risk calculations are presented in Appendix 2.1 of *Technical Appendix C2*.

At the MEIR, the maximum excess cancer risk attributable to the Project's DPM emissions is calculated to be 7.36 in one million and would not exceed the SCAQMD cancer risk threshold of 10 in one million. Also, at the MEIR, the non-cancer health risk index attributable to the proposed Project would be 0.003, which would not exceed the SCAQMD non-cancer health risk index of 1.0. (Urban Crossroads, 2018b, p. 1) Accordingly, the Project's long-term operations would not directly cause or contribute in a cumulatively-considerable manner to the exposure of residential receptors to substantial DPM emissions. Therefore, the Project would result in a less-than-significant impact to residential receptors.

At the MEIW, the maximum excess cancer risk attributable to the Project's DPM emissions is calculated to be 3.37 in one million, which would not exceed the SCAQMD cancer risk threshold of 10 in one million. At the MEIW, the non-cancer health risk index attributable to the proposed Project would be 0.007, which would not exceed the SCAQMD non-cancer health risk index of 1.0. (Urban Crossroads, 2018b, p. 1)

Accordingly, long-term operations at the Project site would not directly cause or contribute in a cumulatively-considerable manner to the exposure of nearby workers to substantial DPM emissions. Therefore, the Project would result in a less-than-significant impact to worker receptors.

At the MEISC, the maximum excess cancer risk attributable to the Project's DPM emissions is calculated to be 1.24 in one million, which would not exceed the SCAQMD cancer risk threshold of 10 in one million. At the MEISC, the non-cancer health risk index attributable to the proposed Project would be 0.0007, which would not exceed the SCAQMD non-cancer health risk index of 1.0. (Urban Crossroads, 2018b, p. 1) Accordingly, long-term operations at the Project site would not directly cause or contribute in a cumulatively considerable manner to the exposure of nearby school children to substantial DPM emissions. Therefore, the Project would result in a less-than-significant impact to school child receptors.

Threshold e: Would the Project create objectionable odors affecting a substantial number of people?

The Project could produce air emissions leading to odors during proposed construction activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities on the Project site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. (Urban Crossroads, 2018a, pp. 1-2) Accordingly, the Project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

During long-term operation, the Project would operate as a parcel delivery facility, which is not typically associated with the emission of objectionable odors. The temporary storage of refuse associated with the Project's long-term operational use could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, thereby precluding any significant odor impact. Furthermore, the Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation. (Urban Crossroads, 2018a, pp. 1-2) As such, long-term operation of the Project would not create objectionable odors affecting a substantial number of people.

4.3.6 Cumulative Impact Analysis

As described under the analysis for Threshold "a," the Project would conflict with the SCAQMD's *2016 AQMP* because the Project would exceed growth projections in the City of Chino General Plan and, consequently, would generate emissions that were not anticipated by the *AQMP*. The Project's conflict with the *AQMP* is determined to be a significant cumulatively-considerable impact.

Based on SCAQMD guidance, any exceedance of a regional or localized threshold for criteria pollutants also is considered to be a cumulatively-considerable effect, while air pollutant emissions that fall below applicable regional and/or localized thresholds are not considered cumulatively-considerable. As discussed

in the preceding analysis under Thresholds "b" and "c," the Project would exceed the SCAQMD regional thresholds for NO_X emissions during long-term operation. Therefore, the Project's regional emissions of NO_X (during operation) would be cumulatively-considerable and mitigation would be required. All other Project construction- and operational-related regional and localized emissions, including DPM emissions, would not exceed the applicable SCAQMD thresholds and, therefore, are not considered cumulatively-considerable. As discussed under Threshold "d," the Project's air emissions would not contribute to the formation of a CO "hot spot" and would not increase sensitive receptor carcinogenic and non-carcinogenic risk thresholds above levels that are considered cumulatively considerable by the SCAQMD.

As indicated in the analysis of Threshold "e," above, there are no Project components that would expose a substantial number of sensitive receptors to air emissions leading to objectionable odors. The areas surrounding the Project site are developed with agriculture, residential, industrial, airport, and commercial land uses; the agricultural uses, which include dairies and field crops, are sources of offensive odors. The Project would not create objectionable odors and would eliminate uses from the Project site (i.e., agriculture) that contribute odors to the Project area. Furthermore, the agricultural uses in the Project area are planned for long-term development with non-agricultural uses; as the agricultural uses are replaced with non-agricultural uses, objectionable odors in the Project area will reduce. Because the Project would not create objectionable odors and objectionable odors are not expected to occur in the areas immediately surrounding the Project site upon planned development, there is no potential for odors from the Project site to commingle with odors from nearby development projects in the long-term and expose nearby sensitive receptors to substantial, offensive odors. Accordingly, the Project would have a less-than-significant cumulative impact.

4.3.7 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project would conflict with the growth projections contained in the SCAQMD's *2016 AQMP*.

Thresholds b and c: Significant Direct and Cumulatively-Considerable Impact. The Project would exceed the applicable SCAQMD regional thresholds for NO_X emissions during long-term operation. As such, Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB, which is a significant direct and cumulatively-considerable impact.

Threshold d: Less-than-Significant Impact. The Project's localized criteria pollution emissions during construction and operation would not exceed the applicable SCAQMD thresholds. The Project also would not expose sensitive receptors to toxic air contaminants (i.e., DPM) that exceed the applicable SCAQMD carcinogenic and non-carcinogenic risk thresholds. Lastly, the Project would not cause or contribute to the formation of a CO "hot spot."

Threshold e: Less-than-Significant Impact. The Project would not produce air emissions that would lead to unusual or substantial construction-related odors. Odors associated with long-term operation of the Project would be minimal and less than significant. The Project would comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.

4.3.8 MITIGATION

Although Project's construction-related particulate matter (PM_{10} and $PM_{2.5}$) emissions would be less than significant, the following mitigation measures would ensure compliance with SCAQMD Rules and minimize the Project's construction-related particulate matter emissions.

MM 4.3-1 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, the City of Chino shall verify that the following notes are specified on the grading plan and within the construction management plan required in accordance with City of Chino Municipal Code Section 20.23.210. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Chino staff or its designee to confirm compliance.

a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site.

b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads.

c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.

d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., install wheel shakers, wheel washers, limit site access).

e) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

f) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.

g) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action to legitimate complaints within 24 hours.

h) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.

i) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.

j) A high wind response plan shall be formulated and implemented for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.

MM 4.3-2 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 "PM_{10} Emissions from Paved and Unpaved Roads and Livestock Operations" and Rule 1186.1, "Less-Polluting Street Sweepers" by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Chino shall verify that the following notes are included on the grading and building plans and within the construction management plan required in accordance with City of Chino Municipal Code Section 20.23.210. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Chino staff or its designee to confirm compliance.

a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning.

b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM_{10}-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.

The following mitigation measures would reduce the Project's operational-related NO_X emissions and the contributions of this pollutant to the SCAB's non-attainment status for ozone.

MM 4.3-3 Prior to the issuance of a building permit, the Project Applicant shall provide documentation to the City of Chino demonstrating that the Project is designed to exceed the California Energy Code (Title 24, Part 6) standards in effect at the time of building permit application submittal by three (3) percent and includes the energy efficiency design features listed below at a minimum.

a) Preferential parking locations for carpool, vanpool, EVs and CNG vehicles;

b) At least fifty percent (50%) of the yard trucks used on-site shall be powered by gasoline, natural gas, and/or electricity; and

c) All fixtures installed in restrooms and employee break areas shall be U.S. EPA Certified WaterSense or equivalent.

MM 4.3-4 Prior to the issuance of permits that would allow the installation of landscaping, the City of Chino shall review and approve landscaping plans for the site that requires: 1) a plant palette emphasizing drought-tolerant plants; and 2) use of water-efficient irrigation technique. The City of Chino shall inspect for adherence to these requirements after landscaping installation.

MM 4.3-5 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 three (3) 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 of Chino shall conduct a site inspection to ensure that the signs are in place.

MM 4.3-6 Prior to the issuance of an occupancy permit, the Project Applicant or successor in interest shall provide documentation to the City of Chino 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.

4.3.9 Significance of Impacts After Mitigation

Thresholds a, b, and c: Significant and Unavoidable Direct and Cumulative Impact. Mitigation Measures (MMs) MM 4.3-3 through MM 4.3-6 would require the Project to incorporate design features that will reduce the Project's overall demand for energy resources and would reduce the Project's operational NO_X emissions (NO_X is released during the combustion of certain types of energy resources). However, mobile source emissions account for approximately 95 percent, by weight, of the Project's total operational NO_X emissions. Mobile source emissions are regulated by standards imposed by federal and State agencies, not local governments. No other mitigation measures related to vehicle tailpipe emissions are available that are within the City of Chino's jurisdictional authority and that are feasible for the City of Chino to enforce that have a proportional nexus to the Project's level of impact. As such, it is concluded that the Project's operational-related emissions of NO_X would exceed SCAQMD air quality standards on a daily basis. In addition, the Project's operational-related emissions of NO_X would cumulatively contribute to an existing air quality violation in the SCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., federal and State ozone concentrations). Accordingly, the Project's long-term operational-related emissions of NO_X are concluded to result in a significant and unavoidable impact on both a direct and cumulatively-considerable basis.

4.4 BIOLOGICAL RESOURCES

This Subsection assesses the potential for the Project to impact sensitive biological resources. The analysis in this Subsection is based, primarily, on information contained in a site-specific technical report prepared by Glenn Lukos Associates, Inc. (hereafter, "GLA") titled, "Biological Technical Report for the Chino Parcel Delivery Service Project," and dated September 29, 2017. The technical report is included as *Technical Appendix D* to this EIR (GLA, 2017). The biological resources evaluation included the review of relevant literature, field surveys, and a geographic information system (GIS)-based analysis of vegetation communities. The field study performed by GLA included: 1) vegetation mapping; 2) general and focused biological surveys; 3) a jurisdictional delineation; 4) habitat assessments for special-status plants and wildlife species; 5) habitat evaluation for the Delhi Sands Flower-Loving Fly; and 6) a focused survey for the burrowing owl (GLA, 2017, p. 2). Refer to *Technical Appendix D* for detailed descriptions of the survey dates, scopes of study, and research and survey methodologies used in the biological resources evaluation.

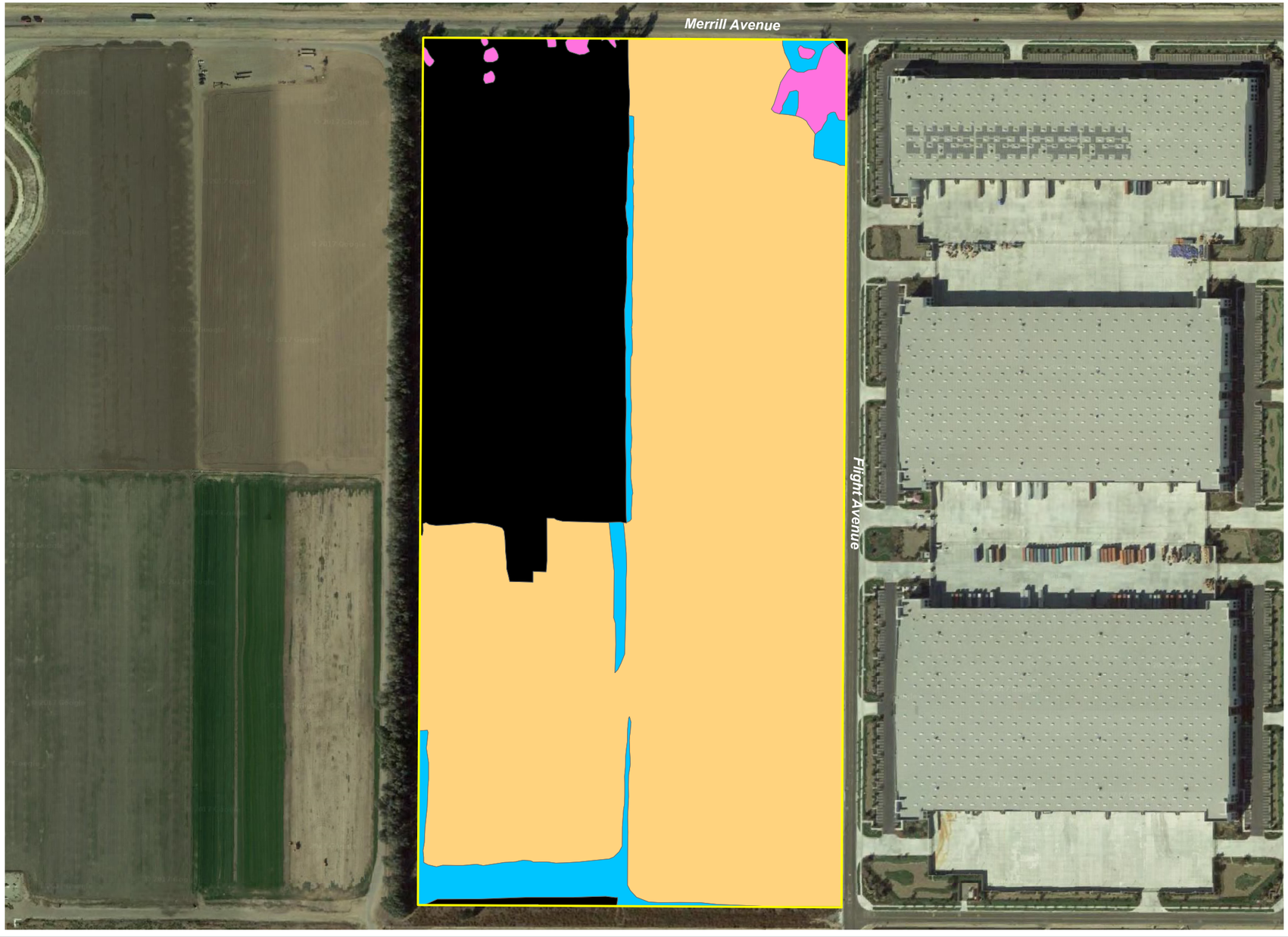
4.4.1 EXISTING CONDITIONS

The Project site contains non-conforming uses, including two residences, two dairy operations that house approximately 700 head of cattle, several agricultural support buildings (e.g., cattle pens and structures for shelter, feed, and water), as well as a pasture area and agricultural lands (i.e., field crops). The Project site is relatively flat and is disturbed/developed with pervasive non-native, ruderal vegetation. Wildlife detected on the Project site were limited primarily to species highly adaptable to human activity and man-made landscapes. (GLA, 2017, pp. 2, 17-18)

The Project's off-site impact area includes land that abuts the Project site within the public rights-of-way for Merrill Avenue (on the north), Flight Avenue (on the east), and Comet Avenue (on the west), as well as land within the Remington Avenue right-of-way that abuts the southwest corner of the Project site and extends west. Under existing conditions, the portion of the Merrill Avenue right-of-way located within the Project's off-site impact area is partially developed as a paved street and features a small windrow of tamarisk trees; the portion of the Flight Avenue right-of-way located within the Project's off-site impact area is developed as a paved street with a curb and gutter; and the portion of the Comet Avenue right-of-way located within the Project's off-site impact area is undeveloped. Also, under existing conditions, the Project's off-site impact area within the Remington Avenue right-of-way and the area extending to the west is disturbed and used as a dirt road. (GLA, 2017, pp. 2, 32)

A. Vegetation Communities

Based on vegetation mapping conducted by GLA, the Project site contains four (4) distinct vegetation communities: agriculture, disturbed/developed, ornamental, and ruderal. The vegetation communities observed within the Project site are illustrated on Figure 4.4-1, *Existing Vegetation Communities*, and described on the following pages. None of the vegetation communities on the Project site are classified as a sensitive natural vegetation community or special-status vegetation community. (GLA, 2017, pp. 18-19)



Source(s): Google Earth (2018), Glenn Lukos Associates (09-2017)

NOT TO SCALE

Figure 4.4-1

EXISTING VEGETATION COMMUNITIES

- **Agriculture.** The Project site contains approximately 49.4 acres of agricultural land, consisting of pastureland associated with the dairy and crop fields (GLA, 2017, p. 18).
- **Disturbed/Developed.** The approximately 20.7 acres of the Project site that are mapped as disturbed/developed land are associated with the active dairy operation (GLA, 2017, p. 18).
- **Ornamental.** The approximately 1.0 acre of ornamental land on the Project site includes gum trees, tamarisk, and other ornamental trees scattered across the northwestern and northeastern portions of the Project site (GLA, 2017, p. 18).
- **Ruderal.** The Project site contains approximately 3.3 acres of ruderal vegetation. Ruderal areas on the Project site are dominated by non-native species and have been subject to repeated disturbance over many years. (GLA, 2017, p. 18)

The Project's off-site impact area is comprised of disturbed/developed vegetation communities, with the exception of the short segments of windrows planted within the Merrill Avenue and Remington Avenue rights-of-way. The windrows are not classified as native or special-status plant communities, as they were planted as a windbreak for dairy and agricultural operations and are comprised of non-native tree species (i.e., tamarisk and gum). (GLA, 2017, pp. 17-19)

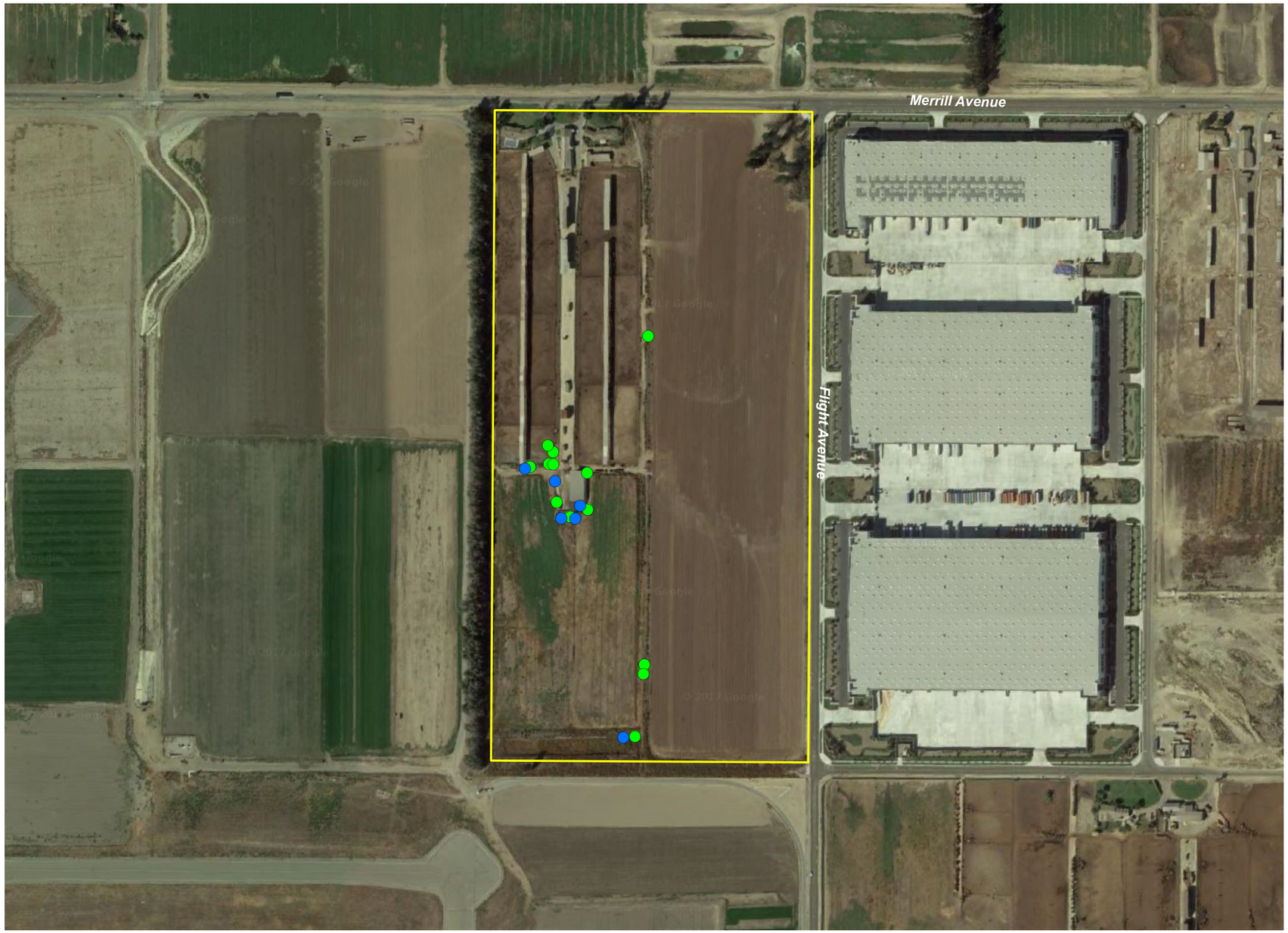
B. Special-Status Plants

No special-status plant species were observed on the Project site or within the Project's off-site impact area. No special-status plant species are expected to occur on the Project site or within the Project's off-site impact area due to the lack of suitable habitat. (GLA, 2017, p. 19)

C. Special-Status Animals

No special-status animal species were detected on the Project site or within the Project's off-site impact area (GLA, 2017, pp. 18, 24). Although no special-status animal species were observed by GLA, the following seven (7) species have the potential to occur on the Project site and/or within the Project's off-site impact area based on the physical characteristics of the property and the current and/or historical distribution of the species.

- **Burrowing Owl.** The burrowing owl is a California Species of Special Concern. No burrowing owls or signs of their use (i.e., scat, tracks, pellets, or feathers) were observed during surveys conducted by GLA biologists. However, GLA determined that the burrowing owl has a moderate to high potential for occurrence on the Project site because the species is migratory, the site contains suitable habitat for the species, including numerous burrows, and the burrowing owl is known to occur on other properties in the vicinity of the site. The locations of the suitable burrows within the Project site were mapped and are depicted on Figure 4.4-2, *Burrowing Owl Habitat Map.* (GLA, 2017, p. 29)



Source(s): Google Earth (2018), Glenn Lukos Associates (09-2017)

Figure 4.4-2

NOT TO SCALE

BURROWING OWL HABITAT MAP

- **Golden Eagle.** The golden eagle is a California Species of Special Concern. The Project site appears to provide suitable foraging habitat for the golden eagle, although the amount of small mammal prey is limited due to existing agricultural and land management activities. There is no potential for this species to nest on or adjacent to the Project site as the golden eagle is sensitive to human disturbance and the site lacks ledges used for nest placement. Based on the foregoing information, GLA determined the species has a low potential to occur on the Project site. (GLA, 2017, p. 29)

- **Loggerhead Shrike.** The loggerhead shrike is a California Species of Special Concern with a low potential to occur on the Project site. The large, contiguous open areas within the Project site may attract migrant or winter visitors; however, the Project site does not provide quality foraging for the species due to predation pressures and human disturbance. (GLA, 2017, p. 30)

- **Northern Harrier.** The northern harrier is a California Species of Special Concern. No nesting habitat for the northern harrier is present within the Project site; however, the species has moderate potential to occur on the property as a foraging migrant and/or winter visitor. The Project site does not provide valuable foraging habitat for the species because the amount of small mammal prey is limited due to existing agricultural and land management activities. (GLA, 2017, p. 30)

- **White-Tailed Kite.** The white-tailed kite is a California Fully-Protected Species. The species has no potential to nest on the Project site as it requires low trees and/or shrubs, which the site lacks. The species has a moderate potential to occur on the Project site during the fall and spring months as a migrant and may forage on the site over winter; however, the site does not provide valuable foraging habitat for the species because the amount of small mammal prey is limited due to existing agricultural and land management activities. (GLA, 2017, p. 30)

- **Western Mastiff Bat.** The western mastiff bat is a California Species of Special Concern. The Project site provides suitable foraging habitat for the species but does not show potential to be especially valuable or productive for the species. The species nests and roosts in crevices in tall, generally vertical surfaces and requires very low levels of disturbance, which is not present on the Project site. Based on the conditions on the Project site, the species has a low, but reasonable, potential for occasional foraging but no potential for roosting or nesting on the Project site. (GLA, 2017, p. 30)

- **Western Yellow Bat.** The western yellow bat is a California Species of Special Concern. This species is primarily a desert species and historically forages, roosts, and nests in desert wetlands, especially native fan palm oases but has expanded its range due to habitat pressures. The Project site holds a few non-native fan palms (that could be used for rooting/nesting) and marginal potential foraging habitat for the species. The species has a low, but possible, potential to occur on the Project site. (GLA, 2017, pp. 30-31)

The Project site and the Project's off-site impact area (specifically, the existing windrows) also provide potential foraging and/or breeding habitat for common raptor species, including the red-tailed hawk, American kestrel, Cooper's hawk, great horned owl, and barn owl, although breeding raptors were not

detected during biological surveys. Notwithstanding, the quality of foraging habitat on the Project site is low due to extensive, long-standing dairy and agricultural use of the property and alteration of the site from natural conditions, squirrel abatement activities associated with historic and ongoing dairy and agricultural uses, and the relative lack of small mammals on the Project site. (GLA, 2017, p. 31)

The northeastern corner of the Project site contains Delhi Fine Sand soil, which is associated with the federally-protected Delhi Sands flower-loving Fly (DSFF). Based on an assessment of the on-site Delhi Fine Sand soils by Scott Cameron, Principal Biologist, Ecological Sciences, Inc., the Project site was determined to contain habitat that was unsuitable for the DSFF because the quality of on-site Delhi Fine sand soils are low; no plants associated with the DSFF are present on-site; no exposed natural or semi-natural open areas with unconsolidated wind-worked granitic soils or dunes are present on-site; and on-site soils have been exposed to intensive and recurring disturbance due to historic and ongoing dairy and agricultural operations. (GLA, 2017, p. 31 & Appendix A)

D. Nesting Birds

Although no active bird nests were observed, the Project site and the windrows in the Project's off-site impact area contain trees, shrubs, and ground cover that provide suitable nesting sites for nesting migratory bird species (GLA, 2017, p. 32).

E. Jurisdictional Waters and Wetlands

The Project site does not support any drainages, water courses, vernal pools, or wetland habitats that would be under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and/or the Regional Water Quality Control Board (RWQCB) (GLA, 2017, pp. 32-33).

4.4.2 Applicable Environmental Plans, Policies, and Regulations

The Project site is subject to State of California (hereafter, "State") and federal regulations that were developed to protect natural resources, including: state and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the State or federal governments; and other special-status vegetation communities. Provided below is an overview of the federal, State, and regional laws, regulations, and requirements that are applicable to the property. Information regarding ACOE, CDFW, and RWQCB regulations governing waters and wetlands – which are not present in the Project site or the Project's off-site impact area – is provided in Section 3.3 of *Technical Appendix D*.

A. Federal Plans, Policies, and Regulations

1. Endangered Species Act (ESA)

The purpose of the federal Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine

wildlife such as whales and anadromous fish such as salmon. Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. (USFWS, 2013)

The ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on Federal land. Protection from commercial trade and the effects of federal actions do apply for plants. (USFWS, 2013)

Section 7 of the ESA requires federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the USFWS and NMFS, as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. During consultation, the "action" agency receives a "biological opinion" or concurrence letter addressing the proposed action. In the relatively few cases in which the USFWS or NMFS makes a jeopardy determination, the agency offers "reasonable and prudent alternatives" about how the proposed action could be modified to avoid jeopardy. It is extremely rare that a project ends up being withdrawn or terminated because of jeopardy to a listed species. (USFWS, 2013)

Section 10 of the ESA may be used by landowners including private citizens, corporations, tribes, States, and counties who want to develop property inhabited by listed species. Landowners may receive a permit to take such species incidental to otherwise legal activities, provided they have developed an approved habitat conservation plan (HCP). HCPs include an assessment of the likely impacts on the species from the proposed action, the steps that the permit holder will take to avoid, minimize, and mitigate the impacts, and the funding available to carry out the steps. HCPs may benefit not only landowners but also species by securing and managing important habitat and by addressing economic development with a focus on species conservation. (USFWS, 2013)

2. Migratory Bird Treaty Act (16 USC Section 703-712)

The Migratory Bird Treaty Act (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13. The USFWS has statutory authority and responsibility for enforcing the MBTA (16 U.S.C. 703-712). The MBTA implements Conventions between the United States and four countries (Canada, Mexico, Japan, and Russia) for the protection of migratory birds. (USFWS, 2015)

3. *Bald and Golden Eagle Protection Act*

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." "Disturb" means: "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." (USFWS, 2016)

B. *State Plans, Policies, and Regulations*

1. *California Endangered Species Act (CESA)*

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. The California Department of Fish and Wildlife (CDFW) works with interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. CDFW may authorize the take of any such species if certain conditions are met. (CDFW, 2017a)

Section 2081 subdivision (b) of the California Fish and Game Code (CFGC) allows CDFW to authorize take of species listed as endangered, threatened, candidate, or a rare plant, if that take is incidental to otherwise lawful activities and if certain conditions are met. These authorizations are commonly referred to as incidental take permits (ITPs). (CDFW, 2017a)

If a species is listed by both the federal ESA and CESA, CFGC Section 2080.1 allows an applicant who has obtained a federal incidental take statement (federal Section 7 consultation) or a federal incidental take permit (federal Section 10(a)(1)(B)) to request that the Director of CDFW find the federal documents consistent with CESA. If the federal documents are found to be consistent with CESA, a consistency determination (CD) is issued and no further authorization or approval is necessary under CESA. (CDFW, 2017a)

A Safe Harbor Agreement (SHA) authorizes incidental take of a species listed as endangered, threatened, candidate, or a rare plant, if implementation of the agreement is reasonably expected to provide a net conservation benefit to the species, among other provisions. SHAs are intended to encourage landowners to voluntarily manage their lands to benefit CESA-listed species. California SHAs are analogous to the federal safe harbor agreement program and CDFW has the authority to issue a consistency determination based on a federal safe harbor agreement. (CDFW, 2017a)

2. Natural Community Conservation Planning Act (NCCP)

CDFW's Natural Community Conservation Planning (NCCP) program takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. The NCCP program began in 1991 as a cooperative effort to protect habitats and species. It is broader in its orientation and objectives than the California and Federal Endangered Species Acts, as these laws are designed to identify and protect individual species that have already declined in number significantly. (CDFW, 2017b)

An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. Working with landowners, environmental organizations, and other interested parties, a local agency oversees the numerous activities that compose the development of an NCCP. CDFW and the U.S. Fish and Wildlife Service provide the necessary support, direction, and guidance to NCCP participants. (CDFW, 2017b)

3. Native Plant Protection Act (NPPA) of 1977

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations. (CDFW, 2017d)

4. Unlawful Take or Destruction of Nests or Eggs (CFGC Sections 3503.5-3513)

Section 3503.5 of the CFGC specifically protects birds of prey, stating: "It is unlawful to take, possess, or destroy any . . . [birds-of-prey] 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."

Section 3513 of the CFGC duplicates the federal protection of migratory birds, stating: "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act."

C. Local Plans, Policies, and Regulations

1. City of Chino Municipal Code

The City's Municipal Code (§ 20.19.040) requires that an arborist certified by the International Society of Arboriculture be retained prior to the removal of any tree(s) 10 inches or larger in diameter to make a recommendation as to the feasibility of maintaining or removing the tree(s). In addition, the removal of any existing trees requires the replacement of trees with a species designated by the Community Development Director or his designee. These replacement trees may be required on the property from which the tree(s) was removed, or at an off-site location. (Chino, 2018)

2. City of Chino Subarea 2 Resources Management Plan

The City of Chino adopted the Subarea 2 Resources Management Plan (hereafter, "RMP") in conjunction with adoption of The Preserve Specific Plan. The RMP provides a detailed methodology for implementing the biological resources mitigation measures contained in The Preserve Specific Plan EIR (SCH #2000121036) and establishes a framework for development within the Specific Plan area to ensure compliance with the EIR's biological mitigation measures. The RMP is herein incorporated by reference and available for review at the City of Chino Community Development Department, Planning Division, 13220 Central Avenue, Chino, CA 91710.

4.4.3 BASIS FOR DETERMINING SIGNIFICANCE

Environmental impacts to biological resources are assessed using impact threshold criteria, which reflect the policy statement contained in CEQA § 21001(c) of the Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

In the development of thresholds of significance for impacts to biological resources, CEQA provides guidance primarily in § 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. CEQA Guidelines § 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species ..."*

Therefore, for the purpose of analysis in this EIR, the proposed Project would result in a significant impact to biological resources if the Project or any Project-related component would:

a. *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;*

b. *Have a substantially 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. Wildlife Service;*

c. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan.

4.4.4 IMPACT ANALYSIS

For purposes of the analysis on the following pages, the Project site and the Project's off-site impact area are collectively referred to as the "Project impact area."

Threshold a:	***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?***

A. Impacts to Special-Status Plants

No special-status plants were documented in the Project impact area by GLA biologists during field surveys. Furthermore, due to the disturbed nature of the Project impact area and lack of natural plant communities thereon, the area does not have potential to support special-status plant species known to occur in the Project area. (GLA, 2017, p. 19) Therefore, the Project would not impact special-status plant species and mitigation is not required.

B. Impacts to Special-Status Animals

As discussed in Subsection 4.4.1C, no special-status animal species were detected in the Project impact area by GLA biologists during field surveys (GLA, 2017, pp. 24, 32). Notwithstanding, the Project impact area contains habitat that has the potential to be used by up to seven (7) special-status animal species. The special-status animal species with the potential to occur in the Project impact area include raptors (burrowing owl, northern harrier, golden eagle, and white-tailed kite), songbirds (loggerhead shrike), and bats (western mastiff bat and western yellow bat). Potential impacts to these special-status species are discussed below.

1. Special-Status Raptors

The Project would remove potential foraging habitat for the northern harrier, golden eagle, and white-tailed kite from the Project site. The viability of lands to support raptor foraging is directly connected to its ability to support raptor prey – small mammals. However, the extensive, long-standing alteration of the site from natural conditions and squirrel abatement activities (related to active dairy and agricultural activities) have resulted in a lack of small mammals at the Project site. Because the Project site does not contain productive foraging grounds for the northern harrier, golden eagle, and/or white-tailed kite, the Project would result in a less-than-significant impact to the foraging ability of these species. (GLA, 2017, pp. 31-32, 36) Neither the

Project site nor the Project's off-site impact area contain suitable nesting habitat for the northern harrier, golden eagle, and white-tailed kite; therefore, development of the Project would have no impact to the reproductive ability of these species (GLA, 2017, pp. 29-30).

Although no burrowing owl individuals or signs of burrowing owl use were observed on the Project site during surveys conducted by GLA, the burrowing owl is a nomadic species and the subject property contains habitat suitable for the species (GLA, 2017, pp. 29, 35). Accordingly, it is possible that the species could migrate onto the property prior to Project construction. If burrowing owls are present on the Project site at the time grading activities commence, impacts to the species would be significant and mitigation would be required.

2. Special-Status Songbirds

The Project would remove habitat (i.e., open fields, windrows) that has the potential to be used by the loggerhead shrike for foraging and roosting during migration. However, this species is known to utilize a variety of landscapes during migration, including residential landscapes, and migrant habitat is not considered a limiting resource for these species nor is migrant habitat protected by applicable federal or State regulations. Furthermore, due to past and on-going disturbances on the Project site, the property includes relatively low-quality foraging habitat for the loggerhead shrike (GLA, 2017, p. 30). Because migrant habitat for the loggerhead shrike is widely available in the region and because valuable foraging grounds for this species is not present within the Project impact area, the Project would result in a less-than-significant impact to the ability of special-status songbirds to migrate and forage in the Project area. Mitigation is not required.

3. Special-Status Bats

The Project would remove habitat that has the potential to be used by the western mastiff bat and western yellow bat species for foraging and roosting during migration. Both species have a low potential to occur in a foraging role above the Project site, with western yellow bat also potentially roosting in the nonnative fan palms present on the site. Both species forage on insects while in flight. The Project has the potential to reduce available foraging habitat for these bat species, although the quality of the potential habitat does not appear to be of much value given the limited number of flying insects detected during site visits. Although there is potential for the western yellow bat to roost in the non-native fan palms on the Project site, this species is classified as a solitary bat that only roosts singly or with few other individuals. With the relatively few numbers of non-native fan palms on the Project site, the number of western yellow bats potentially roosting in the fan palms is expected to be less than ten. Given the limited number of individuals potentially impacted on the Project site and the fact that the western yellow bat population is increasing in the southern California region due to the prevalence of ornamental fan palms, the Project would not result in a substantial adverse effect to the regional western yellow bat population. Based on the foregoing information, the Project would have a less-than-significant impact on special-status bats. (GLA, 2017, p. 36)

C. *Indirect Impacts to Special-Status Biological Resources*

Development projects located adjacent to natural open spaces have the potential to result in indirect effects to biological resources such as light pollution, noise pollution, non-native/ornamental plant invasion, etc. The Project site and the areas immediately surrounding the property are heavily disturbed (or already developed), dominated by non-native species, and do not have a high potential to support sensitive or special-status biological resources (GLA, 2017, p. 37). Due to the lack of natural, undisturbed habitat surrounding the Project site, the Project would not result in indirect impacts to special-status biological resources. Accordingly, the Project would result in less-than-significant indirect impacts to special-status biological resources.

Threshold b:	***Would the Project have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?***

None of the habitat types within the Project impact area are classified as riparian habitats, nor are these habitats identified as sensitive natural communities in local or regional plans, policies, or regulations, or by the CDFW or the USFWS (GLA, 2017, pp. 32, 35). Accordingly, the Project has no potential to result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. No impact would occur and mitigation is not required.

Threshold c:	***Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

The Project impact area does not contain any protected wetland or aquatic resources, including, but not limited to, natural drainages or water courses, wetland habitat, marsh, vernal pools, or coastal resources (GLA, 2017, p. 32) that fall under federal or State jurisdiction. Therefore, the Project would not result in a substantial adverse effect on State protected wetlands or federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means. No impact would occur and mitigation is not required.

Threshold d:	***Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

The Project impact area does not contain natural, surface drainage or ponding features. Additionally, there are no water bodies on or adjacent to the Project site that could support fish. Therefore, there is no potential for the Project to interfere with the movement of native resident migratory fish. The Project impact area also does not serve as a wildlife corridor nor is it connected to an established corridor, and there are no native wildlife nurseries on or adjacent to the site. Therefore, there is no potential for the Project to impede the use of a native wildlife nursery site. (GLA, 2017, pp. 33, 37) Based on the foregoing information, the Project

would result in no impact to any native resident or migratory fish, established wildlife corridor, or native wildlife nursery sites.

The Project would remove vegetation (i.e., windrows, ornamental trees, shrubs and groundcover) that has the potential to provide roosting and nesting habitat for birds, including migratory and common raptor species (GLA, 2017, pp. 32, 36). However, no active nests were observed within the Project impact area during field surveys and the Project includes substantial tree plantings – primarily along Merrill Avenue and Flight Avenue – that would replace the biological function of the existing roosting and nesting habitat within the Project impact area (GLA, 2017, pp. 31-32, 40). Notwithstanding, if active nests are present within the Project impact area during construction, the Project could result in substantial, adverse effects to biological resources (i.e., bird nests) that are protected by the MBTA and California Fish and Game Code. The Project's potential to impact nesting birds is a significant impact for which mitigation is required.

Threshold e:	***Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

The Project would remove mature, ornamental trees from the Project impact area. The removal of trees is regulated by City of Chino Municipal Code Chapter 20.19.040.D.3, which requires development projects to conduct a tree inventory prior to construction and, if any mature significant trees are to be removed, to replace each removed tree at defined ratios (as specified in Municipal Code Chapter 20.19.040.D.3). The Municipal Code defines "mature significant trees" as oak trees with trunks more than eight inches in diameter at breast height; other trees with trunks more than 10 inches in diameter at breast height; and multi-trunk trees with a total circumference of 38 inches or more at breast height. Prior to removal of any mature significant trees from the Project impact area, the Project Applicant would be required to comply with the provisions of Chapter 20.19.040.D.3 of the City of Chino Municipal Code. Mandatory compliance with the requirements of the Municipal Code would ensure the Project would not conflict with the City of Chino's ordinances regarding tree removal. As such, a less-than-significant impact would occur. (Chino, 2018)

The City of Chino does not have any additional policies or ordinances in place to protect biological resources.

Threshold f:	***Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State habitat conservation plan?***

The Project impact area is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, no impact would occur.

4.4.5 Cumulative Impact Analysis

This cumulative impact analysis for biological resources considers development of the proposed Project in conjunction with other development projects in the vicinity of the Project site (including nearby development

projects located within the cities of Eastvale and Ontario) as well as full General Plan buildout in the cities of Chino, Eastvale, and Ontario.

The Project impact area does not contain any special-status plant species. Therefore, development of the Project would not impact any special-status plant species and there is no potential for the Project to contribute to a cumulative impact to special-status plant species.

Also, the Project impact area does not contain productive foraging or nesting habitat for special-status wildlife species with the potential to utilize the Project site (with the exception of the burrowing owl). Therefore, development of the Project site would not contribute to substantial adverse impacts to the following special-status species that have the potential to utilize the Project site: golden eagle, loggerhead shrike, northern harrier, white-tailed kite, western mastiff bat, and western yellow bat. However, the Project site does contain potentially suitable habitat for the burrowing owl. Although the burrowing owl species was not observed on the Project site during field surveys, there is the potential for this species to occupy the property prior to commencement of Project construction. The burrowing owl is commonly found within the Project vicinity; as such, it is reasonable to conclude that impacts to the burrowing owl habitat would occur in conjunction with development of other properties in Chino, Ontario, and Eastvale. Thus, the Project has the potential to contribute to a cumulatively-considerable impact to the burrowing owl.

The Project would not impact any riparian or sensitive natural communities; therefore, there is no potential for the Project to contribute to a cumulatively-considerable impact to this resource.

The Project would not impact any State-protected or federally-protected wetlands. Accordingly, the Project has no potential to contribute to a cumulatively-considerable impact to State or federally protected wetlands.

The Project would remove vegetation that has the potential to support nesting birds protected by federal and State regulations. A wide range of habitat and vegetation types have the potential to support nesting birds; therefore, it is likely that other development projects within the cumulative study area also may impact nesting birds. However, the Project – like all other development activities in the cumulative study area – would be required to comply with State and federal law to preclude impacts to nesting birds. The Project's potential impact to nesting birds would be cumulatively-considerable absent compliance to State and federal regulations.

The Project would not conflict with any local policies or ordinances protecting biological resources. Other development projects in the cumulative study area would be required to comply with applicable local policies and/or ordinances related to the protection of biological resources as a standard condition of review/approval. Because the Project and cumulative development would be prohibited from violating applicable, local policies or ordinances related to the protection of biological resources, a cumulatively-considerable impact would not occur.

The Project impact area is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

Because there is no conservation plan applicable to the Project impact area, there is no potential for the Project to contribute to the violation of a conservation plan. No cumulative impact would occur.

4.4.6 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. No sensitive vegetation communities, special-status plant species, or special-status wildlife species are located within the Project impact area. The Project site does contain habitat that is suitable for the burrowing owl and there is the potential that the burrowing owl could migrate onto the property before Project construction commences; in this event, impacts to the burrowing owl would be significant on a direct and cumulatively-considerable basis. The Project would have no substantial impact, either directly or through habitat modifications, on any other candidate, sensitive, or special-status plant or wildlife species.

Threshold b: No Impact. The Project impact area does not contain riparian and/or other sensitive natural habitats; therefore, the Project would have no impact on riparian or other sensitive habitats as defined by the CDFW or USFWS.

Threshold c: No Impact. No State or federally protected wetlands are located within the Project impact area; therefore, no impact to wetlands would occur.

Threshold d: Significant Direct and Cumulatively-Considerable Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. However, the Project has the potential to impact nesting migratory birds protected by the MBTA and California Fish and Game Code.

Threshold e: No Impact. The Project would not conflict with any local policies or ordinances protecting biological resources.

Threshold f: No Impact. The Project impact area is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, no impact would occur.

4.4.7 Mitigation

The following mitigation measures would address the Project's potential to impact the burrowing owl:

MM 4.4-1 No sooner than 30 days prior to and no later than 14 days prior to grading activities, a qualified biologist shall conduct a survey of the Project's impact footprint and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Chino prior to the issuance of a grading permit and subject to the following provisions:

a) In the event that the pre-construction survey detects no burrowing owls in the impact area, a grading permit may be issued without restriction.

b) In the event that the pre-construction survey detects the burrowing owl within the Project's impact footprint, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the Project Applicant shall ensure at minimum that Project-related activities occur in conformance with the burrowing owl mitigation standards established by the *City of Chino Subarea 2 Resources Management Plan*.

i. Prior to disturbance of occupied burrows, natural or artificial replacement burrows shall be provided at a ratio of 2:1 within a City-designated relocation area. A qualified biologist shall confirm the replacement burrows are unoccupied and suitable for burrowing owl use prior to disturbance of occupied burrows.

ii. No disturbance shall occur within 50 meters of occupied burrows during the non-breeding season (September 1 through January 31) or within 75 meters of occupied burrows during the breeding season (February 1 through August 31), until the Project Applicant provides evidence to the City of Chino that suitable replacement burrows have been provided.

iii. Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the 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.

iv. If burrowing owls are present at the time occupied burrows are to be disturbed, the owls shall be excluded from the site in accordance with CDFW relocation protocol and the protocol established in Table 4-6 of the *City of Chino Subarea 2 Resources Management Plan*.

v. Subject to the provisions of the Subdivision Map Act vesting map requirements, if the City of Chino has established a mitigation fee program for the long-term management of burrowing owl habitat as recommended by the *City of Chino Subarea 2 Resources Management Plan*, prior to issuance of a grading permit, the Project Applicant shall pay the appropriate mitigation fee to the City of Chino.

The following mitigation measure would address the Project's potential impact to nesting birds during construction:

MM 4.4-2 Vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (January 31 through September 1), unless a migratory bird nesting survey is completed in accordance with the following requirements:

a) A migratory bird nesting survey of the Project site and the Project's off-site development area, including suitable habitat within a 250-foot radius, shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground

disturbance. A copy of the migratory nesting bird survey results report shall be provided to the City of Chino.

b) If the survey does not identify the presence of any active nests, then construction activities can proceed without restriction.

c) If the survey identifies the presence of active nests, then the qualified biologist shall provide the City with a copy of maps showing the location of all nests and a species-appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the City and shall be no less than a 100-foot radius around the nest for non-raptors and no more than a 500-foot radius around the nest for raptors.

1. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing. No construction vehicles shall be permitted within restricted areas (i.e., bird protection zones), unless directly related to the management or protection of the legally protected species, until all nestlings have fledged and left the nest (or the nest has failed).

2. In the event that a nest is abandoned despite efforts to minimize disturbance and, if the nestlings are still alive, the Project Applicant/Developer shall contact the California Department of Fish and Wildlife (CDFW) and, subject to CDFW approval, fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).

Although the Project's long-term impacts to nesting habitat for common raptor species and migratory birds is determined to be less than significant, the following mitigation measure would apply to ensure that on-site tree plantings flourish and can sustain nesting birds.

MM 4.4-3 Prior to the issuance of a grading or clearing permit that would permit the removal of ornamental tree windrows from the Project impact area, the following activities shall occur in conformance with the windrow mitigation standards established by the *City of Chino Subarea 2 Resources Management Plan*:

a) The Project Applicant shall retain a qualified biologist to prepare a tree replacement program that includes the following minimum information required by the *City of Chino Subarea 2 Resources Management Plan*. The City of Chino shall review and approve the tree replacement program prior to the removal of ornamental windrows:

1. Inventory of trees proposed for removal;

2. Specifications for replacement trees (including tree species, number of trees for each species, and size of replacement trees);

3. Location of proposed on-site replacement area(s) (shall be located in an area supportive of raptor habitat and subject to City approval);
4. Planting requirements;
5. Irrigation requirements;
6. Post-planting monitoring requirements, including germination/survival rates and expected growth rates, for a 5-year period;
7. Requirement to conduct a survey for nesting birds, including raptors, if trees will be removed;
8. Requirement that trees be moved outside the breeding season if birds are determined to be nesting; and
9. Requirement that a qualified arborist submit an annual report to the City documenting the germination/survival rates and growth rates for all replacement trees, for a 5-year period.

4.4.8 Significance of Impacts After Mitigation

Threshold a: Less-than-Significant Impact with Mitigation Incorporated. Implementation of MM 4.4-1 would ensure that pre-construction surveys are conducted for the burrowing owl to determine the presence or absence of the species on the Project site. If present, the mitigation measure provides performance criteria that requires avoidance and/or relocation of burrowing owls in accordance with CDFW protocol. With implementation of the required mitigation, potential direct and cumulatively-considerable impacts to the burrowing owl would be reduced to below a level of significance.

Threshold d: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-2 would ensure that pre-construction surveys are conducted for nesting birds to determine presence or absence prior to disturbance of habitat with the potential to support nesting birds. If nesting birds are present, the mitigation requires avoidance of bird nests during the breeding season in conformance with accepted protocols and regulatory requirements. With implementation of the required mitigation, potential direct and cumulatively-considerable impacts to nesting birds would be reduced to below a level of significance.

4.5 CULTURAL RESOURCES & TRIBAL CULTURAL RESOURCES

The analysis in this Subsection is based, in part, on two (2) site-specific cultural resources assessment reports prepared by Brian F. Smith & Associates, Inc. (hereafter, "BFSA") for the Project site. The referenced BFSA reports include the following: 1) "Phase I Cultural Resources Survey for the Chino Parcel Delivery Project," dated August 24, 2017 (BFSA, 2017a), which is included as *Technical Appendix E1* to this EIR; and 2) "Paleontological Resource and Monitoring Assessment for the proposed Chino Parcel Delivery project site in the City of Chino, San Bernardino County, California," dated August 22, 2017 (BFSA, 2017b), which is included as *Technical Appendix E2* to this EIR. Information used to support the analysis in this Subsection also was obtained from the Open Space and Conservation Element of the City of General Plan (Chino, 2010a, OSC-1 - 29), and the Cultural and Paleontological Resources section (Chino, 2010a, pp. 4.5-1 - 14) of the certified Final Program EIR prepared for the City of Chino General Plan (SCH No. 2008091064), dated May 2010, and The Preserve Specific Plan Final EIR (SCH No. 2000121036) prepared for the City of Chino (Chino, 2003). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.5.1 EXISTING CONDITIONS

A. Paleontological Resources

1. Regional Setting

According to the City of Chino General Plan EIR, alluvial soils in the City have the potential to yield fossils of importance. The Preserve Specific Plan EIR disclosed that older (Pleistocene) alluvium soils that have the potential to yield significant vertebrate fossils are present throughout the Specific Plan area. Vertebrate land mammal fossils that have been discovered in the City – and near, but not within The Preserve Specific Plan area – include mammoth, ground sloth, camel, bison, horse, and deer. (Chino, 2010b, pp. 4.5-9 - 4.5-10; Chino, 2003, p. 5.13-6)

2. Project Site Conditions

The Project site is located on the distal margins of a broad floodplain of the ancestral Santa Ana River and is underlain by Quaternary (Holocene and late-Pleistocene) young alluvial fan deposits. These young alluvial fan deposits occur at shallow depths above older Quaternary (early-Pleistocene) very old alluvial fan deposits. The Quaternary sediments that underlie the Project site contain high paleontological sensitivity and often yield important fossils of large, terrestrial, Ice Age vertebrates (e.g., bison, mammals, mastodon, horse, camel, giant ground sloth, short-faced bears, saber-toothed cats, and others). (BFSA, 2017b, pp. 1-2)

BFSA reviewed records databases at the San Bernardino County Museum (SBCM) and Natural History Museum of Los Angeles County (LACM) to determine whether fossils have been recovered on or in proximity of the Project site or elsewhere in southern California from the same geologic deposits that underlie the Project site. None of these records searches revealed any previously recorded fossils on the Project site. The closest known fossil localities to the Project site were collected approximately 1.5 miles from the current Project site. The recovered fossils – terrestrial mammal remains, including extinct camel (*Camelops* cf. *hesternus*) and extant bighorn sheep (*Ovis Canadensis*) – were found within same types of

ancestral Santa Ana River fluvial (floodplain) sediments that are present on the Project site. The proximity of these fossil localities to the Project site suggests that Pleistocene-age deposits in the Project area have a "High" paleontological sensitivity. (BFSA, 2017b, p. 2)

B. Prehistoric Resources

1. Regional Setting

The Project site is located in the southeastern portion of the City of Chino, San Bernardino County, California. The Paleo-Indian Period, Archaic Period, and the Late Prehistoric Period are the three general cultural periods represented in San Bernardino County, as summarized briefly below. Refer to *Technical Appendix E2* for a more detailed discussion about the prehistoric cultural periods in San Bernardino County.

- Paleo-Indian Period (Late-Pleistocene: 11,500 to 9,000 years ago). The Paleo-Indian Period is associated with the terminus of the late Pleistocene period. During this time, the climate became warmer, causing sea levels to rise and major vegetation changes to occur. Paleo Indians were attracted to multiple habitats, including mountains, marshlands, estuaries, and lakeshores, and used a more generalized adaptation of hunting and gathering to survive. (BFSA, 2017a, p. 3.0-2)
- Archaic Period (Early and Middle Holocene: 9,000 to 1,300 years ago). The Archaic Period marks a shift from the Pleistocene to the Holocene period, representing a time when substantial environmental changes occurred. In southern California, this period is associated with a number of different cultures, complexes, traditions, periods, and horizons, including San Dieguito, La Jolla, Encinitas, Millingstone, Pauma, and Intermediate. (BFSA, 2017a, pp. 3.0-2 - 3.0-3)
- Late Prehistoric Period (Late Holocene: 1,300 years ago to 1790). Approximately 1,350 years before present, a Shoshonean-speaking group moved into San Bernardino County, marking the transition to the Late Prehistoric period. This Period is characterized by higher population densities, the expansion of social, economic, and political systems, and innovations in technological systems. During this Period, the San Bernardino County area was inhabited by the Cahuilla, Gabrielino, and Luiseño Indians. (BFSA, 2017a, p. 3.0-3)

2. Project Site Conditions

BFSA conducted an intensive pedestrian survey of the Project site on April 13-14, 2016. The pedestrian survey consisted of a series of parallel transects, spaced at approximately 20-meter intervals, which covered the entire Project site. The entire property was accessible and approximately 40 percent of the ground surface was visible. The Project site has been disturbed as part of historic and ongoing agriculture and dairy operations. No prehistoric archeological resources were identified on the Project site during the pedestrian survey. (BFSA, 2017a, pp. 1.0-1, 4.0-1)

BFSA also reviewed an archaeological records search conducted by the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton. The records search provided information

regarding previous archaeological studies in the Project area and any previously recorded sites within a one-mile radius of the Project site. The results of this records search indicate that, as part of 13 past cultural resource studies conducted in the Project site's vicinity; no prehistoric artifacts have been previously recorded on the Project site or within a one-mile radius of the site. (BFSA, 2017a, pp. 5.0-1 and 5.0-2)

C. *Historical Resources*

1. *Regional Setting*

The general historical setting for the southern California region and the City of Chino is summarized below. Refer to *Technical Appendix E1* for a more detailed discussion of the local historic setting.

European settlement of southern California began with a Spanish colonizing expedition in 1769. Soon after, the San Gabriel (presently Los Angeles County), San Juan Capistrano (presently Orange County), and San Luis Rey (presently San Diego County) missions began to colonize southern California, and gradually expanded to the interior valley (presently western Riverside County). The indigenous groups who inhabited these lands were recruited and converted by missionaries and worked in the missions. During this time, Native American populations were devastated by the introduction of diseases, new diets that resulted in poor nutrition, and social conflicts brought on by an entirely new social order. (BFSA, 2017a, p. 3.0-7)

In 1846, war broke out between Mexico and the United States and ended in 1848 with the signing of the Treaty of Guadalupe Hidalgo. Upon signing of the Treaty, the region was annexed as a territory of the United States and, in 1850, California became a state which sparked an influx of settlers into the region, including gold miners, entrepreneurs, health-seekers, speculators, politicians, adventurers, those who sought religious freedom, and individuals who desired to create utopian societies. (BFSA, 2017a, p. 3.0-9)

In 1881, Richard Gird purchased the former Rancho Santa Ana del Chino which encompassed approximately 46,000 acres and includes the present-day Chino. The town plat for Chino was laid out by Gird in 1887. Gird created an agricultural experimental station within the Rancho Santa Ana del Chino that tested a variety of crops to determine what crops would thrive locally. Gird also built the narrow-gauge Chino Valley Railroad which was ultimately replaced by a Southern Pacific Railroad spur to the main railroad line in the City of Ontario. The Chino Valley Sugar Beet Factory opened in 1887 and it is likely that lands in the Project area were used to grow sugar beets for processing until closure of the Factory in 1917 or 1918. In the late-1930s, the State purchased large quantities of farmland in the Chino area for the future construction of new prison facilities (the present-day California Institution for Men and the California Institution for Women). Around this same time, the Cal Aero Field (present-day Chino Airport) was constructed and used as training grounds for the United States Army Air Force. The 1930s also marked the beginning of the boom of dairy production in southern California (particularly in southwestern San Bernardino County), which peaked in 1950s through 1980s, due to advances in technology and dairying techniques and dairy-friendly zoning regulations. The City of Chino's large, highly-efficient dairies made it the largest milk-producing community in the nation's largest milk-producing state. (BFSA, 2017a, pp. 3.0-9 - 3.0-10)

2. Project Site Conditions

BFSA conducted a pedestrian survey of the Project site and reviewed historical records databases to identify the presence or absence of historic resources on the Project site.

The Project site contains numerous structures in the northern portion of the site, including two single-family residences and a dairy complex. All of the structures on the Project site are relatively modern (constructed circa 1979) and do not contain any unique, distinctive features, and are not associated with any important historic figures or events. (BFSA, 2017a, pp. 5.0-2, 5.0-3)

Based on archival research, nine (9) historic resources are located within a one-mile radius of the Project site; none of which are located – or previously located – on the Project site (BFSA, 2017a, p. 5.0-1). Refer to *Technical Appendix E1* for additional information about the results of archival research.

4.5.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations governing the protection of cultural and tribal cultural resources.

A. Federal Plans, Policies, and Regulations

1. National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) was passed primarily to acknowledge the importance of protecting our nation's heritage. While Congress recognized that national goals for historic preservation could best be achieved by supporting the drive, enthusiasm, and wishes of local citizens and communities, it understood that the Federal Government must set an example through enlightened policies and practices. In the words of the Act, the Federal Government's role would be to "provide leadership" for preservation, "contribute to" and "give maximum encouragement" to preservation, and "foster conditions under which our modern society and our prehistoric and historic resources can exist in productive harmony." (ACHP, 2016)

NHPA and related legislation sought a partnership among the Federal Government and the States that would capitalize on the strengths of each. The Federal Government, led by the National Park Service (NPS) provides funding assistance; basic technical knowledge and tools; and a broad national perspective on America's heritage. The States, through State Historic Preservation Officers (SHPOs) appointed by the Governor of each State, would provide matching funds, a designated State office, and a statewide preservation program tailored to State and local needs and designed to support and promote State and local historic preservation interests and priorities. (ACHP, 2016)

An Advisory Council on Historic Preservation, the first and only Federal entity created solely to address historic preservation issues, was established as a cabinet-level body of Presidentially-appointed citizens, experts in the field, and Federal, State, and local government representatives, to ensure that private citizens, local communities, and other concerned parties would have a forum for influencing Federal policy, programs, and decisions as they impacted historic properties and their attendant values. (ACHP, 2016)

Section 106 of NHPA granted legal status to historic preservation in Federal planning, decision-making, and project execution. Section 106 requires all Federal agencies to take into account the effects of their actions on historic properties, and provide ACHP with a reasonable opportunity to comment on those actions and the manner in which Federal agencies are taking historic properties into account in their decisions. (ACHP, 2016)

A number of additional executive and legislative actions have been directed toward improving the ways in which all Federal agencies manage historic properties and consider historic and cultural values in their planning and assistance. Executive Order 11593 (1971) and, later, Section 110 of NHPA (1980, amended 1992), provided the broadest of these mandates, giving Federal agencies clear direction to identify and consider historic properties in Federal and federally assisted actions. The National Historic Preservation Amendments of 1992 further clarified Section 110 and directed Federal agencies to establish preservation programs commensurate with their missions and the effects of their authorized programs on historic properties. (ACHP, 2016)

2. National Register of Historic Places (NRHP)

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

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

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

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

Under federal law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a

project that receives Federal assistance, usually funding or licensing/permitting. National Register listing does not lead to public acquisition or require public access. (NPS, n.d.)

3. Native American Graves Protection and Repatriation Act (NAGPRA)

The Native American Graves Protection and Repatriation Act (NAGPRA; Public Law 101-601; 25 U.S.C. 3001-3013) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. (NPS, 2016)

One major purpose of this statute is to require that Federal agencies and museums receiving Federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. The agencies and museums must consult with Indian Tribes and Native Hawaiian organizations to attempt to reach agreements on the repatriation or other disposition of these remains and objects. Once lineal descent or cultural affiliation has been established, and in some cases the right of possession also has been demonstrated, lineal descendants, affiliated Indian Tribes, or affiliated Native Hawaiian organizations normally make the final determination about the disposition of cultural items. Disposition may take many forms from reburial to long term curation, according to the wishes of the lineal descendent(s) or culturally affiliated Tribe(s). (NPS, 2016)

The second major purpose of the statute is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on Federal and tribal lands. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on Federal or tribal lands. Excavation or removal of any such items also must be done under procedures required by the Archaeological Resources Protection Act. This NAGPRA requirement is likely to encourage the in-situ preservation of archaeological sites, or at least the portions of them that contain burials or other kinds of cultural items. (NPS, 2016)

Other provisions of NAGPRA: (1) stipulate that illegal trafficking in human remains and cultural items may result in criminal penalties; (2) authorizes the Secretary of the Interior to administer a grants program to assist museums and Indian Tribes in complying with certain requirements of the statute; (3) requires the Secretary of the Interior to establish a Review Committee to provide advice and assistance in carrying out key provisions of the statute; authorizes the Secretary of the Interior to penalize museums that fail to comply with the statute; and, (5) directs the Secretary to develop regulations in consultation with this Review Committee. (NPS, 2016)

B. State Plans, Policies, and Regulations

1. California Administrative Code, Title 14, Section 4308

Section 4308, Archaeological Features, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value."

2. California Code of Regulations Title 14, Section 1427

California Code of Regulations Title 14, Section 1427 provides that: "No person shall collect or remove any object or thing of archeological or historical interest or value, nor shall any person injure, disfigure, deface or destroy the physical site, location or context in which the object or thing of archeological or historical interest or value is found."

3. California Register of Historic Resources

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

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

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

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

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

4. Traditional Tribal Cultural Places Act (Senate Bill 18, "SB 18")

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. (OPR, 2005)

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government. (OPR, 2005)

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code § 65300 *et seq.*) and specific plans (defined in Government Code § 65450 *et seq.*). Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment. (OPR, 2005)

5. Assembly Bill 52 (AB 52)

California Assembly Bill 52 (AB 52) Chapter 532 is an act to amend § 5097.94 of, and add §§ 21073, 21074, The legislature added new requirements regarding tribal cultural resources in Assembly Bill 52 (AB 52). By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. (OPR, 2015)

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

declaration, mitigated negative declaration, or environmental impact report is required for a project. (Pub. Resources Code, § 21080.3.1.) (OPR, 2015)

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

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

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or

(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource. (OPR, 2015)

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2015)

6. State Health and Safety Code

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

7. California Code of Regulations Section 15064.5

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification

and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines § 15064.5, as follows:

A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 *et seq.*).

- A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:
    - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    - Is associated with the lives of persons important in our past;
    - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
    - Has yielded, or may be likely to yield, information important in prehistory or history.
- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

4.5.3 Basis for Determining Significance

The proposed Project would result in a significant impact to cultural resources if the Project or any Project-related component would:

a. Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5;

b. Cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section 15064.5;

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

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

The proposed Project also would 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, if the Project or any Project-related component would impact a resource that is:

e. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resource as defined in Public Resources Code Section 5020.1 (k); or

f. 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 the subdivision (c) of Public Resources Code Section 5.24.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects that development projects could have on cultural and/or tribal cultural resources. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold.

4.5.4 Impact Analysis

Threshold a:	***Would the Project cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?***

The Project Applicant would demolish all structures that are located on the Project site under existing conditions. As described under Subsection 4.5.1, the structures located on the Project site are of relatively modern construction (circa 1979), do not contain any unique or distinctive architectural elements, and are not particularly unique or representative of the time period in which they were constructed or utilized. Based on the foregoing observations, BFSA concluded that none of the structures located on the Project site qualify as a historic resource. (BFSA, 2017a, p. 5.0-2) Accordingly, implementation of the Project has no potential to

result in a substantial adverse change to any historical resource as defined by California Code of Regulations § 15064.5.

Threshold b: Would the Project cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section 15064.5?

BFSA conducted a cultural resources inventory of the Project site, which included a records search with the SCCIC at CSU Fullerton and an intensive pedestrian survey of the site. According to the archival records search, no prehistoric resources have been previously recorded on the Project site or within a one-mile radius of the site and, according to the pedestrian survey, no prehistoric resources were observed on the Project site. (BFSA, 2017a, pp. 5.0-1 and 5.0-2) Furthermore, due to the lack of known prehistoric archaeological resources in the vicinity of the Project site and the site's historic use for dairy and agriculture operations (which have resulted in severely impacted/disturbed ground conditions), the likelihood of discovering buried prehistoric archaeological resources on the Project site is considered low (BFSA, 2017a, p. 6.0-1). Regardless of BFSA's determination, the City is obligated to consider all sources of information in rendering a conclusion of potential significance. One (1) Native American Tribe with a traditional use area that encompasses the Project site indicated to the City during the SB 18 and AB 52 consultation processes for this EIR (refer to Threshold "f" below) that tribal cultural resources (which also may be classified as significant prehistoric archaeological resources, as defined in CCR § 15064.5) have the potential of being unearthed during the Project's construction activities. Accordingly, although considered unlikely, implementation of the Project is determined to have the potential to impact significant archaeological resources if such resources are discovered during Project-related construction activities that meet the CCR § 15064.5 definition of a significant archaeological resource.

Threshold c: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Although the Project site does not contain any known unique geologic features and no paleontological resources or sites were observed by BFSA during a field investigation, the Project site is underlain with Pleistocene-age alluvium soils that have a high paleontological sensitivity for fossils of large, terrestrial Ice Age vertebrates (BFSA, 2017b, pp. 1-2). In the event that the Project's construction activities encroach into previously undisturbed Quaternary-age alluvial deposits, the Project could result in impacts to important paleontological resources that may exist below the ground surface *if* they are unearthed and not properly treated. Therefore, the Project's potential to directly or indirectly destroy a unique paleontological resource buried beneath the ground surface is determined to be a significant impact and mitigation is required.

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

The Project site does not contain a cemetery and no known formal cemeteries are located within the immediate site vicinity. Field surveys conducted on the Project site did not identify the presence of any human remains and no human remains are known to exist beneath the surface of the site. (BFSA, 2017a, p.

1.0-1) Nevertheless, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

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

Threshold e:	***Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?***

BFSA conducted an intensive pedestrian survey and found no historic or prehistoric resources on or near the Project site (BFSA, 2017a, p. 1.0-1). BFSA also conducted a records search with SCCIC, and the Native American Heritage Commission (NAHC) Sacred Lands File; neither database identified any resources of Native American provenance on or within one-mile of the Project site that is listed or eligible for listing in the California Register of Historical Resources or a local register of historic resources (BFSA, 2017a, pp. 4.0-1, 5.0-2). Accordingly, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074, and that is listed or eligible for listing in in the California Register of Historical Resources and/or a local register of historical resources as defined in Public Resources Code Section 5020.1(k). No impact would occur.

Threshold f:	***Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 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 order to evaluate whether tribal cultural resources are present at the Project site, BFSA conducted a Sacred Lands File (SLF) records search through the Native American Heritage Commission (NAHC). The results of the SLF search are included in *Technical Appendix E1*. The results of the SLF search did not identify any previously identified Native American cultural resources within the Project site boundary (BFSA, 2017a, p. 4.0-1)

Notwithstanding, the Project is subject to compliance with Assembly Bill 52 (AB 52). The primary intent of AB 52 is to establish a consultation process between potentially affected Native American tribes and CEQA lead agencies that aims to identify tribal cultural resources that would potentially be impacted by a proposed project.

During the AB 52 consultation process, the City of Chino was notified by the Gabrieleno Band of Mission Indians – Kizh Nation that the Project site is located within their traditional use area and that subsurface tribal cultural resources had the potential to be uncovered on the Project site during construction. Accordingly, although considered unlikely, implementation of the Project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. Mitigation would be required.

4.5.5 Cumulative Impact Analysis

The potential of the Project to contribute to cumulative impacts to historical resources was analyzed in conjunction with other projects located in areas that were once similarly influenced by the historical agricultural industry of the City of Chino and the region. Record searches and field surveys indicate the absence of significant historical sites and resources on the Project site; therefore, the Project has no potential to contribute towards a significant cumulative impact to historical sites and/or resources.

The potential for Project-related development to result in cumulatively-considerable impacts to prehistoric archaeological resources were also analyzed in conjunction with other projects located in the traditional use areas of Native American tribes that are affiliated to the Project site. Development activities on the Project site would not impact any known prehistoric archaeological resources and the likelihood of uncovering previously unknown prehistoric archaeological resources during Project construction are low due to the magnitude of disturbance that has occurred on the site due to historic dairy and agricultural operations. Nonetheless, the potential exists for subsurface prehistoric archaeological resource to be discovered during Project-related construction activities that meet the CCR § 15064.5 definition of a significant archaeological resource. Accordingly, the Project has the potential to contribute to a significant cumulative impact to

prehistoric archaeological sites and/or resources. Therefore, the potential for the Project to impact significant prehistoric archaeological resources is a cumulatively-considerable impact for which mitigation is required.

No paleontological resources have been identified on-or-near the Project site; however, the Project would disturb alluvium soils with a high potential to contain fossils. Old alluvium soils are relatively widespread in the City of Chino and elsewhere in the Inland Empire; therefore, other development projects within this geographic region would have a similar potential to uncover unique paleontological resources. Therefore, the potential for the Project to impact subsurface paleontological resources is a cumulatively-considerable impact for which mitigation is required.

Mandatory compliance with the provisions of California Health and Safety Code § 7050.5 as well as Public Resources Code § 5097 *et seq.*, would assure that all future development projects within the region treat human remains that may be uncovered during development activities in accordance with prescribed, respectful and appropriate practices, thereby avoiding cumulative impacts.

The Project's potential to result in cumulatively-considerable impacts to tribal, religious, and cultural resources were analyzed in conjunction with other projects located in the influence areas of the tribes in the region. One (1) Native American tribe stated that there is potential for tribal cultural resources to be uncovered during construction on the Project site. This Native American tribe has a traditional use area that encompasses the Chino Valley, and other development projects within the Chino Valley would have a similar potential to uncover tribal cultural resources. Therefore, the potential for the Project to impact tribal cultural resources is a cumulatively-considerable impact for which mitigation is required.

4.5.6 Significance of Impacts Before Mitigation

Threshold a: No Impact. The Project would not impact a historic resource. No historic resources are present on the Project site; therefore, no historic resources could be altered or destroyed by construction or operation of the Project.

Threshold b: Significant Direct and Cumulatively-Considerable Impact. No known prehistoric resources are present on the Project site and the likelihood of uncovering buried prehistoric resources on the Project site is low due to the magnitude of historic ground disturbance on the Project site (resulting from dairy and agricultural operations). Nonetheless, the potential exists for Project-related construction activities to result in a direct and cumulatively-considerable impact to significant subsurface prehistoric archaeological resources should such resources to be discovered during Project-related construction activities.

Threshold c: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature. However, the Project site contains alluvium soils with a high sensitivity for paleontological resources. Accordingly, construction activities on the Project site have the potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface.

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

Threshold e: No Impact. The Project site does not contain any recorded Native American cultural resources; therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources.

Threshold f: Significant Direct and Cumulatively-Considerable Impact. Construction activities on the Project site have the potential, however unlikely, to unearth and adversely impact tribal cultural resources that may be buried beneath the ground surface.

4.5.7 MITIGATION

The following mitigation measures would reduce the Project's potential impact to paleontological resources that may be present beneath the Project site and/or off-site improvement area and have the potential to be discovered during ground-disturbing construction activities.

MM 4.5-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that a qualified paleontologist has been retained to conduct monitoring of grading and excavation operations in Quaternary (early-Pleistocene) very old alluvial fan deposits and late-Quaternary (late-Pleistocene and Holocene) sandy axial channel deposits.

MM 4.5-2 The paleontological monitor shall conduct full-time monitoring in areas of grading or excavation in the shallow subsurface of Quaternary (early-Pleistocene) very old alluvial fan deposits and late-Quaternary (late-Pleistocene and Holocene) sandy axial channel deposits. The paleontological monitor shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that may contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow the removal of abundant and large specimens in a timely manner. In such a situation, the monitor may establish a 50-foot radius surrounding the area of the find, and, construction activities in areas outside this 50-foot radius can proceed. The significance of the discovered resources shall be determined by the paleontologist. If the resource is significant, Mitigation Measure MM 4.5-3 shall apply. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

MM 4.5-3 If a significant paleontological resource is discovered on the property, discovered fossils or samples of such fossils shall be collected and identified by a qualified paleontologist.

Significant specimens recovered shall be properly recorded, treated, and donated to the San Bernardino County Museum, Division of Geological Sciences, or other repository with permanent retrievable paleontological storage. Prior to grading permit inspection approval, a qualified paleontologist shall prepare a final report that itemizes any fossils recovered, with maps to accurately record the original location of recovered fossils, and contains evidence that the resources were curated by an established museum repository. The report shall be submitted to the City of Chino.

The following mitigation measures would reduce the Project's potential impact to significant prehistoric archaeological resources and tribal cultural resources that may be present beneath the Project site and may be discovered during ground-disturbing construction activities.

MM 4.5-4 Prior the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that a professional archaeologist (hereafter "Project Archaeologist") has been retained to conduct monitoring of all mass grading activities. The Project Archaeologist shall have the authority to redirect earthmoving activities in the event that suspected archaeological and tribal cultural resources are unearthed during Project construction.

MM 4.5-5 Prior the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that the Native American Tribe(s) that requested consultation with the City during the SB 18 and AB 52 processes (hereafter referred to as "Native American Tribal Representatives") received a minimum of 30 days' advance notice of all mass grading and trenching activities. The Native American Tribal Representatives also shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. In the event that suspected archaeological or tribal cultural resources are unearthed, the Native American Tribal Representatives shall have the authority to redirect earth moving activities in the affected area.

MM 4.5-6 Prior to the issuance of a grading permit, the Project Applicant or construction contractor shall provide evidence to the City of Chino that the construction site supervisors and crew members involved with grading and trenching operations have received training by the Project Archaeologist to recognize archaeological and tribal cultural resources should such resources be unearthed during ground-disturbing construction activities. Any Native American Tribal Representatives shall be allowed to attend the training session. The training will include a brief review of the cultural sensitivity of the Project site and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel involved with grading and trenching operations that begin work on the Project site following the initial training session must take the training prior to beginning work on the Project site and the Project archaeologist and monitoring

Native American Tribe(s) shall make themselves available to provide the training on an as-needed basis.

MM 4.5-7 If a suspected significant archaeological or tribal cultural resource is identified on the property, the construction supervisor shall be required by his contract to immediately halt and redirect grading operations in a 100-foot radius around the find and seek identification and evaluation of the suspected resource by the Project Archaeologist and the Native American Tribal Representative. This requirement shall be noted on all grading plans and the construction contractor shall be obligated to comply with the note. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section § 15064.5 and Section 21083.2. If the resource is significant, Mitigation Measure MM 4.5-8shall apply.

MM 4.5-8 If a significant archaeological and/or tribal cultural resource is discovered on the property, ground disturbing activities shall be suspended 50 feet around the resource until a treatment plan is implemented. A treatment plan shall be prepared and implemented, subject to approval by the City of Chino, to protect the identified resource(s) from damage and destruction. The treatment plan shall contain a research design and data recovery program necessary to document the size and content of the discovery such that the resource(s) can be evaluated for significance under CEQA criteria. The research design shall list the sampling procedures appropriate to exhaust the research potential of the archaeological or tribal cultural resource(s) in accordance with current professional archaeology standards. The treatment plan shall require monitoring by the appropriate Native American Tribe(s) during data recovery and shall require that all recovered artifacts undergo basic field analysis and documentation or laboratory analysis, whichever is appropriate. At the completion of the basic field analysis and documentation or laboratory analysis, any recovered resource(s) shall be processed and curated according to current professional repository standards. The collections and associated records shall be donated to an appropriate curation facility, or, the artifacts may be delivered to the appropriate Native American Tribe(s) if that is recommended by the City of Chino. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City of Chino, the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton, and the appropriate Native American Tribe(s).

4.5.8 Significance of Impacts After Mitigation

Threshold b: Less-than-Significant Impact with Mitigation. Implementation of MM 4.5-4 through MM 4.5-8 would ensure the proper identification and subsequent treatment of any significant archaeological resources that may be encountered during ground-disturbing activities associated with implementation of the proposed Project. With implementation of the required mitigation, the Project's potential impact to significant archaeological resources would be reduced to less-than-significant.

Threshold c: Less-than-Significant Impact with Mitigation. Mitigation Measures MM 4.5-1 through MM 4.5-3 would ensure the proper identification and subsequent treatment of any paleontological resources that may be encountered during ground-disturbing activities associated with implementation of the proposed Project. Therefore, with implementation of Mitigation Measures MM 4.5-1 through MM 4.5-3, the Project's potential impact to paleontological resources would be reduced to less-than-significant.

Threshold f: Less-than-Significant Impact with Mitigation. Implementation of MM 4.5-4 through MM 4.5-8 would ensure the proper identification and subsequent treatment of any significant tribal cultural resources that may be encountered during ground-disturbing activities associated with implementation of the proposed Project. With implementation of the required mitigation, the Project's potential impact to significant tribal cultural resources would be reduced to less-than-significant.

4.6 GEOLOGY AND SOILS

The following analysis is primarily based on information contained in a site-specific technical report prepared by Southern California Geotechnical (hereafter, "SCG") titled, "Geotechnical Investigation Proposed Logistics Building SWC Merrill Avenue and Flight Avenue," and dated May 7, 2018. The technical report is included as *Technical Appendix F* to this EIR (SCG, 2018). Additional sources of information used to support the analysis in this Subsection include the Geology and Soils section (Section 4.6) of the certified Final Program EIR prepared for the City of Chino General Plan (SCH No. 2008091064), dated May 21, 2010 (Chino, 2010b), and the City of Chino Municipal Code (Chino, 2018) as well as field observations by T&B Planning, Inc. in January 2017 (T&B Planning, 2017). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.6.1 EXISTING CONDITIONS

A. *Soil*

Four (4) types of soil conditions were encountered on the Project site during a soils and geotechnical investigation conducted by SCG in 2018: manure, topsoil, artificial fill, and alluvium. The characteristics of the soil conditions encountered on the Project site are summarized below.

1. Manure

The western portion of the site is occupied by dairy operations that house approximately 700 head of cattle.[1] During geological field investigations, manure was present at the ground surface and extending to approximately 11 inches below grade within the cattle pens in the central portion of the Project site (SCG, 2018, p. 7).

2. Topsoil

Topsoil was encountered during geological field investigations within the agricultural field on the northeastern portion of the Project site. The topsoil is approximately six (6) inches thick and consists of very loose silty fine sands with organic content (SCG, 2018, p. 7).

3. Artificial Fill

Artificial fill soils were encountered during geological field investigations at the ground surface across the site and extended to depths of approximately one-fourth (1/4) to five (5) feet below the existing ground surface. The fill soils consist of loose to medium dense silty fine sands, fine sandy silts, and fine sands with varying amounts of silt, medium sand, and fine gravel. (SCG, 2018, pp. 7-8)

4. Alluvium

Native alluvium was encountered during geological field investigations beneath the manure and/or topsoil at approximately 2.5 to three (3) feet below the existing site grades. Some of the alluvium soils encountered

[1] As noted in EIR Section 2.0, *Environmental Setting*, a dairy farm was operational on the western portion of the Project site at the time the NOP for this EIR was published on September 23, 2017, but has since ceased operation.

have been disturbed as part of the historic and ongoing dairy and agricultural operations on the Project site. The disturbed alluvium consists of loose to medium dense silty fine sands. Beneath the disturbed alluvium is undisturbed alluvial soils, which consist of medium dense to dense silty fine sands and fine to medium sands with varying coarse sand, silt and gravel content. (SCG, 2018, p. 8)

B. Water

SCG did not observe any surface water on the Project site. Additionally, free water was not encountered by SCG at any subsurface testing location on the Project site. Based on the lack of any water at subsurface testing locations and review of available groundwater records, SCG concluded that the groundwater table beneath the Project site and surrounding area is located in excess of 30 feet below the existing ground surface. Based on data from monitoring wells located within a one-mile radius of the Project site, groundwater is estimated to occur between 56 and 83 feet below the ground surface of the Project site. (SCG, 2018, p. 8)

C. Seismic Hazards

The Project site is located in an area of southern California that is subject to strong ground motions due to seismic events (i.e., earthquakes). The geologic structure of southern California is dominated mainly by northwest-trending faults associated with the San Andreas system. The Chino-Central Avenue Fault (located approximately 2.9 miles to the southwest) is the nearest active fault to the Project site (Google Earth, 2018; Chino, 2010b, Figure 4.6-1). An active fault is defined by the California Geological Survey as a fault that has experienced surface displacement within the Holocene Epoch (roughly the last 11,000 years).

Secondary hazards associated with earthquakes include surface rupture, ground failure, unstable soils and slopes. Each of these hazards is briefly described below.

1. Fault Rupture

Fault rupture can occur along pre-existing, known active fault traces; however, fault rupture also can splay from known active faults or rupture along unidentified fault traces. There are no active or potentially active faults occurring on the Project site and no known faults are mapped trending through or toward the site. Therefore, the potential for fault rupture on the Project site is low. (SCG, 2018, p. 11; Chino, 2010b, Figure 4.6-1)

2. Liquefaction

Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions, which causes the soil to behave as a viscous liquid. Liquefaction is generally limited to the upper 50 feet of subsurface soils. Research and historical data indicate that loose granular soils of Holocene to late Pleistocene age below a near-surface groundwater table are most susceptible to liquefaction, while the stability of most clayey material is not adversely affected by vibratory motion (Southern California Earthquake Center, 1999, pp. 5-6). According to the seismic hazards map provided by the California Geological Survey (CGS), the Project site is not located within a designated liquefaction hazard zone. In addition, the subsurface soil conditions encountered at the Project site – and the

lack of shallow groundwater at the site – are not considered conducive to liquefaction; therefore, the potential for liquefaction at the site is low. (SCG, 2018, p. 12)

3. Unstable Soils and Slopes

The Project site is generally flat and does not contain, nor is it adjacent to any, steep natural or manufactured slopes and there is no evidence of historical landslides or rockfalls on the site (Google Earth, 2018). As such, the site is not susceptible to seismically-induced landslides and rockfalls.

D. Slope and Soil Instability Hazards

1. Soil Erosion

Erosion is the process by which the upper layers of the surface (such as soils) are worn and removed by the movement of water or wind. Soils with characteristics such as low permeability and/or low cohesive strength are more susceptible to erosion than those soils having higher permeability and cohesive strength. Additionally, the slope gradient on which a given soil is located also contributes to the soil's resistance to erosive forces. Because water is able to flow faster down steeper gradients, the steeper the slope on which a given soil is located, the more readily it will erode. According to the City of Chino General Plan EIR, soils on the Project site and in the surrounding area are moderately susceptible to water erosion (Chino, 2010b, p. 4.6-7).

Wind erosion can damage land and natural vegetation by removing soil from one place and depositing it in another. It mostly affects dry, sandy soils in flat, bare areas, but wind erosion may occur wherever soil is loose, dry, and finely granulated. According to the City of Chino General Plan EIR, soils on the Project site and in the surrounding area are moderately susceptible to wind erosion (Chino, 2010b, p. 4.6-7). Under existing conditions, the Project site has the potential to contribute windblown soil and sand because portions of the Project site are used for agricultural operations and are generally undeveloped with no or little vegetative cover and contain loose and dry topsoil conditions.

2. Settlement Potential

Settlement refers to unequal compression of a soil foundation, shrinkage, or undue loads being applied to a building after its initial construction that affect the soil foundation. According to SCG, the settlement potential of soils on the Project site is normal/typical of properties in southern California (SCG, 2018, p. 13).

3. Shrinkage/Subsidence Potential

Subsidence is a gradual settling or sudden sinking of the ground surface (i.e., loss of elevation). The principal causes of subsidence are aquifer-system compaction, drainage of organic soils, underground mining, and natural compaction. Shrinkage is the reduction in volume in soil as the water content of the soil drops (i.e., loss of volume). Testing conducted by SCG on soils collected from the Project site indicates that the shrinkage potential on the Project site is variable (due the varying amounts of organic materials (manure) in soils across the site); but, ground subsidence is expected to be minor (SCG, 2018, pp. 15-16).

4. Soil Expansion Potential

Expansive soils are soils that exhibit cyclic shrink and swell patterns in response to variations in moisture content. Soil testing conducted by SCG identified the near surface soils on the Project site as having "very low" to "non-expansive" potential for soil expansion (SCG, 2018, p. 13).

5. Landslide Potential

The Project site and immediately surrounding properties are generally flat and contain no steep natural or manufactured slopes (Google Earth, 2018); thus, there is no potential for landslides to occur on or immediately adjacent to the site.

4.6.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations governing issues related to geology and soils.

A. Federal Plans, Policies, and Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2017a)

B. State Plans, Policies, and Regulations

1. Alquist-Priolo Earthquake Fault Zoning Act (A-P Act)

The Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The A-P Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. (CGS, n.d.)

The A-P Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. ["Earthquake Fault Zones" were

called "Special Studies Zones" prior to January 1, 1994.] The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to two stories not part of a development of four units or more are exempt. However, local agencies can be more restrictive than state law requires. (CGS, n.d.)

Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet). (CGS, n.d.)

Under existing conditions, there are no active faults on the Project site and the Project site is not located within any Alquist-Priolo Earthquake Fault Zone (SCG, 2018, p. 11).

2. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code, Chapter 7.8, § 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the SHMA is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards. (CGS, n.d.)

Staff geologists in the Seismic Hazard Zonation Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally in order to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake–induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. (CGS, n.d.)

The SHMA requires site-specific geotechnical investigations be conducted within the ZORI to identify and evaluate seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy. (CGS, n.d.)

Under existing conditions, the Project site is located in an area with low potential for liquefaction and earthquake-induced landslides (SCG, 2018, p. 12).

3. Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act, effective June 1, 1998 (as amended June 9, 1998), requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. (CGS, n.d)

The law requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development. Single-family frame dwellings up to two stories not part of a development of four or more units are exempt from the state requirements. However, local agencies can be more restrictive than state law requires. (CGS, n.d)

Before a development permit can be issued or a subdivision approved, cities and counties must require a site-specific investigation to determine whether a significant hazard exists at the site and, if so, recommend measures to reduce the risk to an acceptable level. The investigation must be performed by state-licensed engineering geologists and/or civil engineers. (CGS, n.d)

4. Building Earthquake Safety Act

In 1986, the California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. Their intent in this regard was defined in legislation known as the Essential Services Buildings Seismic Safety Act of 1986 and includes requirements that such buildings shall be "…designed and constructed to minimize fire hazards and to resist…the forces generated by earthquakes, gravity, and winds." This enabling legislation can be found in the California Health and Safety Code, Chapter 2, § 16000 through 16022. In addition, the California Building Code defines how the intent of the act is to be implemented in Title 24, Part 1 of the California Building Standards Administrative Code, Chapter 4, Articles 1 through 3. (CAB, n.d.)

5. California Building Standards Code (Title 24)

California Code of Regulations (CCR) Title 24 is reserved for state regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as building standards (reference California Health and Safety Code § 18909). Health and Safety Code (state law) § 18902 gives CCR Title 24 the name California Building Standards Code (CBSC). (CBSC, 2016, p. 3)

The CBSC in CCR Title 24 is published by the California Building Standards Commission and it applies to all building occupancies (see Health and Safety Code §§ 18908 and 18938) throughout the State of California. Cities and counties are required by state law to enforce CCR Title 24 (reference Health and Safety Code §§ 17958, 17960, 18938(b), and 18948). Cities and counties may adopt ordinances making more restrictive requirements than provided by CCR Title 24, because of local climatic, geological, or topographical conditions. Such adoptions and a finding of need statement must be filed with the California Building Standards Commission (Reference Health and Safety Code §§ 17958.7 and 18941.5). (CBSC, 2016, pp. 53, 56)

6. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution.

Pursuant to the Porter-Cologne Act (California Water Code § 13000 *et seq.*), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site and vicinity are located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region.

C. *Local Plans, Policies, and Regulations*

1. *City of Chino General Plan*

The Safety Element of the City of Chino General Plan provides information about natural and human-made hazards in Chino and establishes goals, objectives, and policies to prepare and protect the community from such risks. The Safety Element states that the City shall reduce the risk of geologic hazards to the community by enforcing building codes, requiring the preparation of soils and geologic reports, and using the most current and comprehensive geological hazard mapping available to assist in the evaluation go potential seismic hazards to proposed new development. (Chino, 2010a)

2. *City of Chino Building Code*

The City of Chino Building Code is based on the CBSC and is supplemented with local amendments. The Building Code regulates the construction, alteration, repair, moving, demolition, conversion, occupancy, use, and maintenance of all buildings and structures in the City of Chino. The Building Code is included in Chapter 15 of the City of Chino Municipal Code. (Chino, 2018)

3. *City of Chino Municipal Code*

The City of Chino Municipal Code (§ 19.08.010) requires development projects to be evaluated by geologic engineering reports that identify site-specific geologic and seismic conditions and provide site-specific recommendations to preclude adverse impacts from unstable soils and strong seismic ground-shaking. These reports shall recommend corrective action to preclude any structural damage/hazards that may be caused by geological hazards or unstable soils. (Chino, 2018)

The City of Chino Municipal Code (§19.09.030) also requires development projects to incorporate an erosion and dust control plan into proposed clearing/grubbing, stockpile, grading, or demolition activities to minimize water- and windborne erosion. Specific dust control measures – and a schedule for implementation – are required to be listed on the grading/construction plan as well as the name and contact information of the person responsible for carrying out the dust control measures. The erosion and dust control plan is required to be approved by City of Chino staff prior to the issuance of the applicable construction permit. (Chino, 2018)

4.6.3 Basis for Determining Significance

The proposed Project would result in a significant impact related to geology and soils if the Project or any Project-related component would:

a. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:*
   i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of known fault;*
   ii. *Strong seismic ground shaking;*

iii. Seismic-related ground failure, including liquefaction; or
iv. Landslides.

b. Result in substantial soil erosion or the loss of topsoil;

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or

e. 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.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects related to geology/soils that could result from development projects. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold. Of note, the December 2018 revisions to Appendix G of the CEQA Guidelines suggest presenting the evaluation of paleontological resources under the heading of Geology and Soils, instead of under the heading of Cultural Resources where Appendix G previously had the topic positioned. Refer to EIR Subsection 4.5, *Cultural and Tribal Cultural Resources*, for a discussion of paleontological resources.

4.6.4 Impact Analysis

Threshold a:	***Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:***
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
	ii. Strong seismic ground shaking;
	iii. Seismic-related ground failure, including liquefaction?
	iv. Landslides?

A. Rupture of Known Earthquake Fault

There are no known active or potentially active faults on or trending toward the Project site and the Project site is not located within a mapped Alquist-Priolo Earthquake Fault Zone (SCG, 2018, p. 11). Because there are no known faults located on or trending towards the Project site, there is no potential for the Project to directly or indirectly expose people or structures to substantial adverse effects related to ground rupture. No impact would occur.

B. Strong Seismic Ground Shaking

The Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. This risk is not substantially different than the risk to properties throughout the southern California area. The City of Chino will apply a mandatory condition of approval on the Project that will require all buildings on the Project site to be constructed in accordance with the California Building Standards Code (CBSC), also known as California Code of Regulations (CCR), Title 24 (Part 2), and the City of Chino Building Code. The CBSC and City of Chino Building Code provide standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures, and have been specifically tailored for California earthquake conditions. In addition, the CBSC (Chapter 18) and the City of Chino Municipal Code (§ 19.08.010) require development projects to be analyzed in geologic engineering reports to identify site-specific geologic and seismic conditions and provide site-specific recommendations to preclude adverse effects involving unstable soils and strong seismic ground-shaking, including, but not limited to, recommendations related to ground stabilization, selection of appropriate foundation type and depths, and selection of appropriate structural systems. The Project Applicant retained a professional geotechnical firm, SCG, to prepare a geologic engineering report for the Project site, which is included as *Technical Appendix F* to this EIR. This geologic engineering report complies with the requirements of Chapter 18 of the CBSC and § 19.08.010 of the Chino Municipal Code. In conformance with the Municipal Code, the City will condition the Project to comply with the site-specific ground preparation and construction recommendations contained in *Technical Appendix F*. With mandatory compliance with these standard and site-specific design and construction measures, implementation of the Project would not directly or indirectly expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Impacts would be less than significant.

C. Seismic-Related Ground Failure

According to available mapping data, the Project site is not expected to be subjected to a significant risk associated with seismic-related ground failure, including liquefaction (SCG, 2018, p. 12). Regardless, as noted above, the Project will be required to be designed and constructed in accordance with applicable seismic safety guidelines, including the standard requirements of the CBSC and City of Chino Building Code. Furthermore, and pursuant to Municipal Code § 19.08.010, the Project would be required to comply with the grading and construction recommendations contained within the geologic engineering report for the Project site (see *Technical Appendix F*), which the City would impose as conditions of approval, to further reduce the risk of seismic-related ground failure due to liquefaction. As such, the Project would not directly or indirectly expose people or structures to substantial hazards associated with seismic-related ground failure and/or liquefaction hazards. Impacts would be less than significant.

D. Landslides

The Project site is relatively flat, as is the surrounding area. There are no hillsides or steep slopes on the Project site or in the immediate vicinity of the site (Google Earth, 2018). No manufactured slopes would be created on-site, except within the proposed water quality/detention basin where proposed slopes would

measure up to 10 feet in height with a maximum gradient of 2:1. Also, a 16-foot-tall combination retaining wall/screen wall would be installed along the northern boundary of the Project site, adjacent to Merrill Avenue. Approximately eight (8) feet of the wall would be sunk below the finished grade of Merrill Avenue and approximately eight (8) feet of the wall would rise above the finished grade of Merrill Avenue. The proposed manufactured slopes and retaining wall would be constructed in accordance with the site-specific recommendations contained within the geologic engineering report for the Project site (as required by the City of Chino Municipal Code § 19.08.010). Mandatory compliance with the recommendations contained within the Project site's geologic engineering report would ensure that proposed manufactured slopes and retaining walls are engineered and constructed to maximize stability and preclude safety hazards to on- and off-site areas. Accordingly, the Project would not be exposed to substantial landslide risks, and implementation of the Project would not pose a substantial direct or indirect landslide risk to surrounding properties. Impacts would be less than significant.

Threshold b: Would the Project result in substantial soil erosion or the loss of topsoil?

A. Impact Analysis for Temporary Construction-Related Activities

Under existing conditions, the Project site is largely disturbed and used for dairy and agricultural operations. Development of the Project would result in the demolition of all dairy structures on-site, and grading and construction activities would occur that would further disturb soils on the property. Disturbed soils would be subject to potential erosion during rainfall events or high winds due to the removal of stabilizing vegetation and exposure of these erodible materials to wind and water.

Pursuant to the requirements of the State Water Resources Control Board, the Project will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities, including grading. The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least one (1) acre of total land area. The City's Municipal Separate Storm Sewer System (MS4) NPDES Permit requires development projects to prepare and submit to the City for approval a site-specific Storm Water Pollution Prevention Plan (SWPPP) to demonstrate compliance with the NPDES permit requirements. The SWPPP is required to identify a combination of erosion control and sediment control measures (i.e., Best Management Practices) that will reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges during construction. In addition, the Project will be required to comply with SCAQMD Rule 403's requirements related to fugitive dust control, which would reduce the amount of particulate matter in the air and minimize the potential for wind erosion. Lastly, the Project would be required to implement an erosion and dust control plan pursuant to Chino Municipal Code §19.09.030. With mandatory compliance with the requirements noted in the respective SWPPP, as well as applicable regulatory requirements, the potential for water and/or wind erosion on the Project site during future construction activities would be less than significant and mitigation is not required.

B. Impact Analysis for Long-Term Operational Activities

Upon Project build-out, the Project site would be covered by buildings and landscaping and impervious surfaces. Stormwater runoff from the Project site would be captured, treated to reduce waterborne pollutants

(including sediment), and conveyed off-site via an on-site storm drain system. Accordingly, the amount of erosion that occurs on the Project site would be minimized upon build out of the Project and would be reduced relative to existing conditions.

The City's MS4 NPDES Permit requires development projects to prepare a Water Quality Management Plan (WQMP) and submit the WQMP to the City for approval. The WQMP is required to identify an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges. The WQMP also is required to establish a post-construction implementation and maintenance plan to ensure on-going, long-term erosion protection. Compliance with the WQMP will be required as a condition of approval for the Project, as would the long-term maintenance of erosion and sediment control features. The preliminary WQMP for the Project is provided as *Technical Appendix I2* to this EIR. Because the Project will be required to utilize erosion and sediment control measures to preclude substantial, long-term soil erosion and loss of topsoil, the Project would result in less-than-significant impacts related to soil erosion.

Threshold c:	***Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

The Project site is relatively flat and no substantial natural or man-made slopes are located on or adjacent to the Project site (Google Earth, 2018). As mentioned in Threshold "a," the Project includes manufactured slopes and a retaining wall; however, both of these features would be engineered for long-term stability and would be constructed in accordance with the recommendations contained within the geologic engineering report prepared for the Project site (as required by the City of Chino Municipal Code § 19.08.010). Accordingly, the Project would result in less-than-significant impacts associated with landslide hazards.

SCG determined that individual soil layers at the site are subject to highly variable estimated shrinkage ranging from one (1) to 22 percent (SCG, 2018, p. 15). However, the geologic engineering report prepared for the Project site (*Technical Appendix F*) indicates that the site's shrinkage/subsidence and settlement potential can be attenuated through the removal of surface and near surface soils down to competent materials and replacement with properly compacted fill (SCG, 2018, pp. 18-19). The City will condition the Project to comply with the site-specific ground preparation and construction recommendations contained in the Project's geologic engineering report (refer to *Technical Appendix F*). Based on the foregoing, potential impacts related to soil shrinkage/subsidence and collapse would be less than significant.

Lateral spreading is primarily associated with liquefaction hazards. As noted above under the discussion of Threshold "a," the potential for liquefaction at the Project site is considered low based on the Project site's topography and soil conditions. Accordingly, impacts associated with lateral spreading would not occur.

Threshold d:	***Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?***

Based on expansion index testing of soil samples, SCG determined that the near surface soils on the Project site have an expansion potential ranging from very low to non-expansive (SCG, 2018, p. 13). Accordingly, the Project site does not contain expansive soil and as such, would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils. No impact would occur.

[Note: Threshold "d" is based on Appendix G of the CEQA Guidelines and references Table 18-1-B of the 1994 Uniform Building Code (UBC) which has been superseded by the 2013 CBSC. The 2013 CBSC references ASTM D-4829, a standard procedure for testing and evaluating the expansion index (or expansion potential) of soils established by ASTM International, which was formerly known as the American Society for Testing and Materials (ASTM). ASTM D-4829 was used as the standard for evaluating the Project's potential impact related to expansive soils in the above analysis.]

Threshold e:	***Would the Project 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?***

The Project would be required to connect to the City's municipal wastewater system and would not be permitted to use septic tanks or alternative wastewater disposal systems. Accordingly, the Project would result in no impact related to the use of or performance of septic tanks and/or alternative wastewater systems.

4.6.5 Cumulative Impact Analysis

As noted in the foregoing analysis, all potential Project-related direct and indirect impacts related to geology and soils would be precluded through mandatory conformance with the California Buildings Standards Code, City of Chino Municipal Code, other standard regulatory requirements, and the site-specific geotechnical recommendations contained within *Technical Appendix F,* which will be incorporated as part of the Project's design.

With the exception of erosion hazards, potential hazardous effects related to geologic and soil conditions addressed under Thresholds "a", "c", "d" and "e" are unique to the Project site, and inherently restricted to the specific property proposed for development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) a proposed development project, are specific to conditions on the subject property, and are not influenced by or additive with the geologic and/or soils hazards that may occur on other, off-site properties. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties.

As discussed under Threshold "b," regulatory requirements mandate that the Project incorporate measures design during construction and long-term operation to ensure that significant erosion impacts do not occur. Other development projects in the vicinity of the Project site would be required to comply with the same regulatory requirements as the Project to preclude substantial adverse water and wind erosion impacts. Because the Project and other projects within the cumulative study area would be subject to similar

mandatory regulatory requirements to control erosion hazards during construction and long-term operation, cumulative impacts associated with wind and water erosion hazards would be less than significant.

4.6.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and state ordinances and building codes including, but not limited to, the CBSC (Chapter 18) and City of Chino Municipal Code § 19.08.010, would ensure that the Project minimizes potential hazards related to seismic ground shaking.

Threshold b: Less-than-Significant Impact. The Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities and adhere to a Storm Water Pollution Prevention Plan (SWPPP), SCAQMD Rule 403, and Chino Municipal Code §19.09.03 to minimize water and wind erosion. Following completion of development, the Project would be required by law to implement a WQMP during operation, which would preclude substantial erosion impacts in the long-term.

Threshold c: Less-than-Significant Impact. There is no potential for the Project to cause on- or off-site landslides or lateral spreading. Potential hazards associated with unstable soils would be precluded through mandatory adherence to the recommendations contained in the site-specific geologic engineering report.

Threshold d: No Impact. The Project site contains soils with no to very low susceptibility to expansion; therefore, the Project would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils. No impact would occur.

Threshold e: No Impact. No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project site. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.

4.6.7 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.7 GREENHOUSE GAS EMISSIONS

The analysis in this Subsection is based on a report prepared by Urban Crossroads, Inc. titled, "Chino Parcel Delivery Greenhouse Gas Analysis," dated April 30, 2018, and included as *Technical Appendix G* to this EIR (Urban Crossroads, 2018c). The analysis provided in this Subsection evaluates the Project's potential to generate greenhouse gas (GHG) emissions that could contribute substantially to Global Climate Change (GCC) and its associated environmental effects.

4.7.1 EXISTING CONDITIONS

A. *Introduction to Global Climate Change*

GCC is defined as the change in average meteorological conditions on Earth with respect to temperature, precipitation, and storms. GCC is a controversial environmental issue in the United States and there is much debate within the scientific community about the degree to which GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred over the course of thousands or millions of years, and that these historical changes to 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 GHGs in planet Earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. (Urban Crossroads, 2018c, p. 8)

An individual land development project is not capable of generating the magnitude of GHG emissions necessary to cause a discernible effect on global climate. However, individual development projects may contribute to GCC by generating GHGs that combine with other regional and global sources of GHGs. (Urban Crossroads, 2018c, p. 8)

B. *Greenhouse Gases*

Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) emissions are the focus of evaluation in this Subsection because these gases are the primary contributors to GCC resulting from land development projects. Although other substances, such as fluorinated gases, also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate the emissions of these gases. (Urban Crossroads, 2018c, p. 10)

GHGs have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. CO_2 is used as the base reference unit for GWP and, therefore, has a GWP of 1. As shown in the Table 4.7-1, *GWP and Atmospheric Lifetime of Select GHGs*, GWP ranges from 1 for CO_2 to 22,800 for Sulfur Hexafluoride (SF_6). The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.7-1. (Urban Crossroads, 2018c, p. 13)

Table 4.7-1 GWP and Atmospheric Lifetime of Select GHGs

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14,800
HFC-134a	14.6	1,430
HFC-152a	1.5	124
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: (Urban Crossroads, 2018c, Table 2-2)

Provided below is a description of the various gases that contribute to GCC. For more information about these gases and their associated human health effects, refer to Section 2.4 of *Technical Appendix G* and the reference sources cited therein.

- **Water Vapor (H_2O)** is the most abundant and variable GHG in the atmosphere. Changes in the concentration of water vapor in the atmosphere are considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity rises (in essence, the air is able to 'hold" more water when it is warmer), leading to more water vapor in the atmosphere. The higher concentration of water vapor in the atmosphere is then able to absorb more indirect thermal energy radiated from the Earth, further warming the atmosphere and causing the evaporation cycle to perpetuate. 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. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are able to reflect incoming solar radiation and thereby allow less energy to reach the Earth's surface and heat it up. There are no human health effects from water vapor itself; however, certain pollutants can dissolve in water vapor and the water vapor can then act as a pollutant-carrying agent. (Urban Crossroads, 2018c, pp. 10-11)

- **Carbon Dioxide (CO_2)** is an odorless and colorless GHG that is emitted from natural and man-made sources. Natural CO_2 sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Man-made CO_2 sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, human activities that produce CO_2 have increased dramatically. As an example, prior to the industrial revolution, CO_2 concentrations in the atmosphere were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Exposure to CO_2 in high concentrations can cause adverse human health effects, but

outdoor (atmospheric) levels are not high enough to be detrimental to human health. (Urban Crossroads, 2018c, p. 11)

- **Methane (CH_4)** absorbs thermal radiation extremely effectively (i.e., retains heat). Over the last 50 years, human activities such as rice cultivation, cattle ranching, natural gas combustion, and coal mining have increased the concentration of methane in the atmosphere. Other man-made sources include fossil-fuel combustion and biomass burning. No human health effects are known to occur from atmospheric exposure to methane; however, methane is an asphyxiant that may displace oxygen in enclosed spaces. (Urban Crossroads, 2018c, p. 11)

- **Nitrous Oxide (N_2O)** concentrations began to rise in the atmosphere at the beginning of the industrial revolution. N_2O can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction. N_2O is produced by microbial processes in soil and water, including reactions that occur in nitrogen-containing fertilizer. 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. N_2O also is used as an aerosol spray propellant, as a preservative in potato chip bags, and in rocket engines and in race cars. Also, known as laughing gas, N_2O is a colorless GHG that can cause dizziness, euphoria, and hallucinations. In small doses, it is considered harmless; however, heavy and extended use can cause brain damage. (Urban Crossroads, 2018c, p. 11)

- **Chlorofluorocarbons (CFCs)** are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are non-toxic, non-flammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were first synthesized in 1928 and have no natural source. CFCs 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 has been extremely successful, so much so that levels of CFCs are now remaining steady or declining. However, due to their long atmospheric lifetime, some of the CFCs will remain in the atmosphere for over 100 years. (Urban Crossroads, 2018c, p. 12)

- **Hydrofluorocarbons (HFCs)** are synthetic, man-made chemicals that are used as a substitute for CFCs and have one of the highest global warming potential ratings. The HFCs with the largest measured atmospheric abundances are (in order largest to smallest), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). No human health effects are known to result from exposure to HFCs, which are man-made and used for applications such as automobile air conditioners and refrigerants. (Urban Crossroads, 2018c, p. 12)

- **Perfluorocarbons (PFCs)** are primarily produced for aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. 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). No human health effects are known to result from exposure to PFCs. (Urban Crossroads, 2018c, p. 12)

- **Sulfur Hexafluoride (SF_6)** is an inorganic, odorless, colorless, nontoxic, nonflammable gas. 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. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. (Urban Crossroads, 2018c, p. 12)

C. Greenhouse Gas Emissions Inventory

1. Global and National

Worldwide, man-made GHG emissions are tracked by the Intergovernmental Panel on Climate Change. Man-made GHG emissions data is available through 2015. In 2015, total GHG emissions was approximately 28,872,564 gigagrams (Gg) of carbon dioxide equivalent (CO_2e), and the United States was the world's second-largest emitter of GHGs. (Urban Crossroads, 2018c, pp. 8-9)

The primary man-made GHG emitted in the United States was CO_2, representing approximately 83 percent of the United States' total GHG emissions. CO_2 emissions from fossil fuel combustion is the largest source of GHG emission in the United States, accounting for 78 percent of the United States' total GHG emissions. (Urban Crossroads, 2018c, p. 9)

2. State of California

The California Air Resources Board (CARB) compiles GHG inventories for the State of California. Based on 2017 GHG inventory data, California emitted approximately 440.4 million metric tons (MMT) CO_2e. California is the second-largest emitter of GHGs in the United States. (Urban Crossroads, 2018c, p. 9)

3. Project Site

Under existing conditions, the Project site is largely disturbed and primarily used for dairy and agricultural operations. The western portion of the site is occupied by two (2) residences, a dairy farm operation with approximately 700 cows, and several agricultural support buildings. The eastern portion of the site is primarily occupied by cultivated fields. Sources of GHG emissions on-site under existing conditions include residential activity from the two residences in the western portion of the site (e.g., energy use, vehicular transportation to-and-from the site), agricultural operations, and dairy farm operations (including methane – CH_4 – released by cows). Although the Project site produces GHG emissions under existing conditions, for purposes of analysis (and in order to present a "worst-case" scenario) the Project's GHG analysis assumes all GHG emissions that would be generated by the Project are "new" emissions and no credit is taken for the elimination of any existing GHG emissions on the Project site.

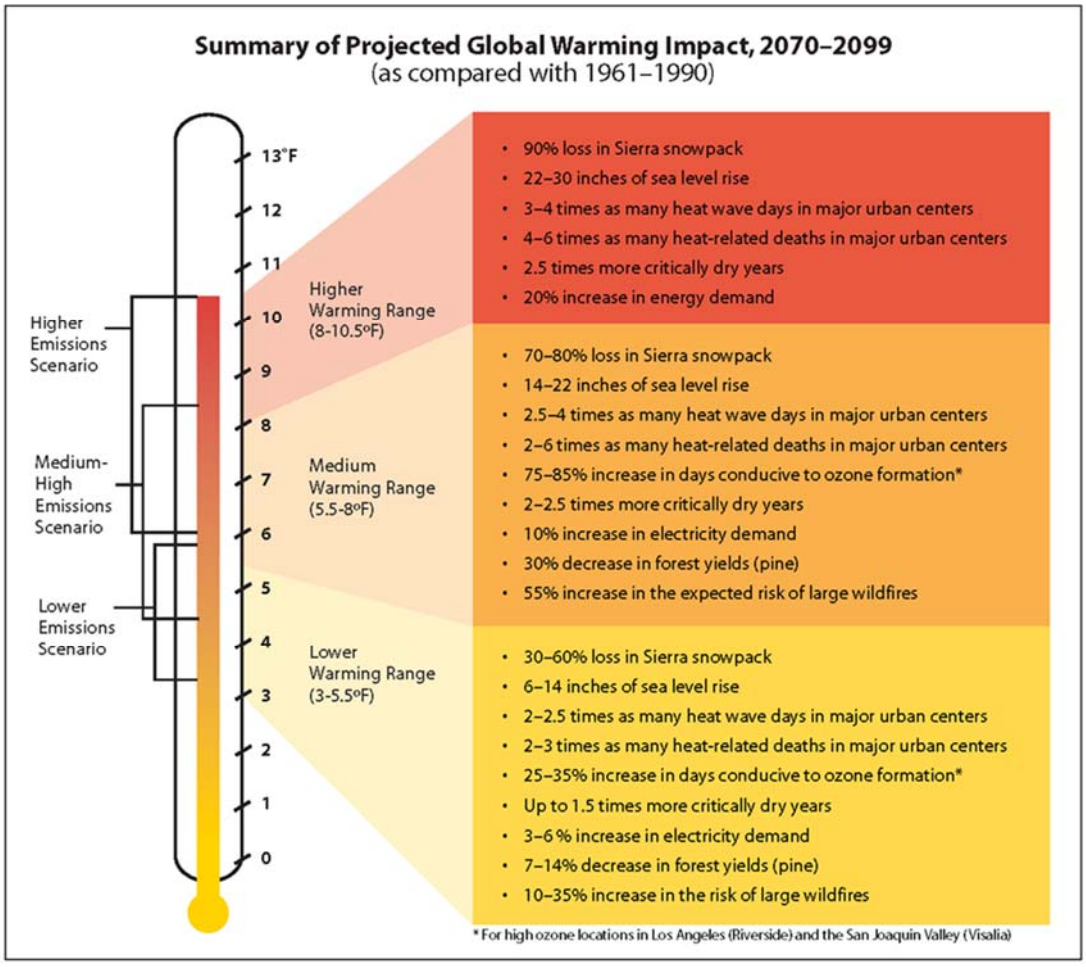
D. Potential Effects of Climate Change in California

In February 2006, the California Climate Change Center (CCCC) published a report titled "Scenarios of Climate Change in California: An Overview" (the "Climate Scenarios report") that is generally instructive about effects of climate change in California. The Climate Scenarios report used a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming

ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.4°F); medium warming range (5.5-7.8°F); and higher warming range (8.0-10.4°F). (CCCC, 2006, p. 7) In addition, the California Natural Resources Agency adopted a "California Climate Adaptation Strategy" in 2009. This report details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes, and responds to the Governor's Executive Order (EO) S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts. (California Natural Resources Agency, 2009, p. 4)

Based on the estimated scenarios presented in the Climate Scenario and California Climate Adaption Strategy reports, Table 4.7-2, *Summary of Projected Global Warming Impact, 2070-2099*, presents potential impacts of global warming within California.

Table 4.7-2 Summary of Projected Global Warming Impact, 2070-2099



Source: (Urban Crossroads, 2018c, Exhibit 2-A)

The potential effects of climate change in California are summarized in more detail below and include, but are not limited to, the following:

- **Human Health Effects.** Climate change can affect the health of Californians by increasing the frequency, duration, and intensity of conditions conducive to air pollution formation, oppressive heat, and wildfires. The primary concern is not the change in average climate, but rather the projected increase in extreme conditions that are responsible for the most serious health consequences. In addition, climate change has the potential to influence asthma symptoms and the incidence of infectious disease. (CCCC, 2006, p. 26)

- **Water Resource/Supply Effects.** Although most climate model simulations predict relatively moderate changes in precipitation over the 21st century, rising temperatures are expected to lead to diminishing snow accumulation in mountainous watersheds, including the Sierra Nevada. Warmer conditions during the last few decades across the western United States have already produced a shift toward more precipitation falling as rain instead of snow, and snowpacks over the region have been melting earlier in the spring. Delays in snow accumulation and earlier snowmelt can have cascading effects on water supplies, natural ecosystems, and winter recreation. (CCCC, 2006, p. 14)

- **Agriculture Effects.** Agriculture, along with forestry, is the sector of the California economy that is most likely to be affected by a change in climate. California agriculture is a $68 billion industry. California is the largest agricultural producer in the nation and accounts for 13% of all U.S. agricultural sales, including half of the nation's total fruits and vegetables. Regional analyses of climate trends over agricultural regions of California suggest that climate change is already affecting the agriculture industry. Over the period 1951 to 2000, the growing season has lengthened by about a day per decade, and warming temperatures resulted in an increase of 30 to 70 growing degree days per decade, with much of the increase occurring in the spring. Climate change affects agriculture directly through increasing temperatures and rising CO_2 concentrations, and indirectly through changes in water availability and pests. (CCCC, 2006, p. 19)

- **Forest and Landscape Effects.** Climate changes and increased CO_2 concentrations are expected to alter the extent and character of forests and other ecosystems. The distribution of species is expected to shift; the risk of climate-related disturbance such as wildfires, disease, and drought is expected to rise; and forest productivity is projected to increase or decrease – depending on species and region. In California, these ecological changes could have measurable implications for both market (e.g., timber industry, fire suppression and damages costs, public health) and nonmarket (e.g., ecosystem services) values. (CCCC, 2006, p. 22)

- **Sea Level Effects.** Coastal observations and global model projections indicate that California's open coast and estuaries will experience rising sea levels during the next century. Sea level rise already has affected much of the coast in southern California, Central California, and the San Francisco Bay and estuary. These historical trends, quantified from a small set of California tide gages, have approached 0.08 inches per year (in/yr), which are rates very similar to those estimated for global mean sea level. So far, there is little evidence that the rate of rise has accelerated, and

indeed the rate of rise at California tide gages has actually flattened since about 1980. However, projections indicate that substantial sea level rise, even faster than the historical rates, could occur during the next century. Sea level rise projections range from 5.1–24.4 inches (in.) higher than the 2000 sea level for simulations under the lower emissions scenario, from 7.1–29.9 in. for the medium-high emission scenario, and from 8.5–35.2 in. for the higher emissions scenario. (CCCC, 2006, p. 10)

4.7.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to GHG emissions.

A. International Plans, Policies, and Regulations

1. Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities." (UNFCCC, n.d.)

The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. The detailed rules for the implementation of the Protocol were adopted at Conference of the Parties (COP) 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012. (UNFCCC, n.d.)

In Doha, Qatar, on December 8, 2012, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes:

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from January 1, 2013 to December 31, 2020;
- A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period. (UNFCCC, n.d.)

On December 21, 2012, the amendment was circulated by the Secretary-General of the United Nations, acting in his capacity as Depositary, to all Parties to the Kyoto Protocol in accordance with Articles 20 and 21 of the Protocol. (UNFCCC, n.d.)

During the first commitment period, 37 industrialized countries and the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first. (UNFCCC, n.d.)

2. The Paris Agreement

The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort. (UNFCCC, n.d.)

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework. (UNFCCC, n.d.)

The Paris Agreement requires all Parties to put forward their best efforts through "nationally determined contributions" (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts. (UNFCCC, n.d.)

In 2018, Parties will take stock of the collective efforts in relation to progress towards the goal set in the Paris Agreement and to inform the preparation of NDCs. There will also be a global stock-taking every five years to assess the collective progress towards achieving the purpose of the Agreement and to inform further individual actions by Parties. (UNFCCC, n.d.)

The Paris Agreement entered into force on November 4, 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55% of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval, or accession with the Depositary. (UNFCCC, n.d.)

On June 1, 2017, President Donald Trump announced he would begin the process of withdrawing the United States from the Paris Agreement. In accordance with articles within the Paris Agreement, the earliest effective date for the United States' withdrawal from the Agreement is November 4, 2020.

B. Federal Plans, Policies, and Regulations

1. Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the EPA issued an Endangerment Finding under § 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In *Massachusetts v. Environmental Protection Agency et al.* (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

C. State Plans, Policies, and Regulations

1. Title 24 Building Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions (2016 Building Energy Efficiency Standards) became effective on January 1, 2017. The 2016 Building Energy Efficiency Standards are 28 percent more efficient than the previous (2013) Building Energy Efficiency Standards for residential construction and 5 percent more efficient than the previous Standards for non-residential construction. (The 2013 Building Energy Efficiency Standards already were 25 percent more efficient for residential construction and 30 percent more efficient for nonresidential construction than the 2008 Building Energy Efficiency Standards they replaced.)

Part 11 of Title 24 is referred to as the California Green Building Standards Code (CalGreen Code). The purpose of the CalGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CalGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California

Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CalGreen Code.

2. California Assembly Bill No. 1493 (AB 1493)

AB 1493 required CARB to adopt the nation's first GHG emission standards for automobiles. On September 24, 2009, CARB adopted amendments to the "Pavley" regulations that reduce GHG emissions in new passenger vehicles from model year 2009 through 2016. These amendments were part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September amendments cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles. (CARB, 2017a)

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles On June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the CAA requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions." (CARB, 2017a)

CARB's Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley). (CARB, 2017a)

The regulations had been threatened by automaker lawsuits and were stalled by the EPA's delay in reviewing and then initially denying California's waiver request. The parties involved entered a May 19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it is expected that the Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. (CARB, 2017a)

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. (CARB, 2017a)

3. Executive Order S-3-05

Executive Order (EO) S-3-05 documents GHG emission reduction goals, creates the Climate Action Team and directs the Secretary of the California EPA to coordinate efforts with meeting the GHG reduction targets with the heads of other state agencies. The EO requires the Secretary to report back to the Governor and Legislature biannually to report: progress toward meeting the GHG goals; GHG impacts to California; and applicable Mitigation and Adaptation Plans. EO S-3-05 goals for GHG emissions reductions include: reducing GHG emissions to 2000 levels by the year 2010; reducing GHG emissions to 1990 levels by the year 2020; and reducing GHG emissions to 80 percent below 1990 levels by 2050. (CCC, n.d.)

4. California Assembly Bill 32 – Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the California Climate Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, which represents a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario. Pursuant to AB 32, the CARB must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The full implementation of AB 32 will help mitigate risks associated with climate change, while improving energy efficiency, expanding the use of renewable energy resources, cleaner transportation, and reducing waste. (CARB, 2014) AB 32 specifically requires that CARB shall do the following:

- Prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years.
- Maintain and continue reductions in emissions of GHG beyond 2020.
- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020.
- Identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010.
- Adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions.
- Convene an Environmental Justice Advisory Committee to advise the Board in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32.
- Appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research, and GHG emission reduction measures. (CARB, 2014)

In November 2007, CARB completed its estimated calculations of Statewide 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs). Accordingly, 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMTCO2e for 2000 and without emissions reduction measures 2010 emissions were projected to be 532 $MMTCO_2e$. "Business as usual" conditions (without the reductions to be implemented by CARB regulations) for 2020 were projected to be 596 $MMTCO_2e$. (CARB, 2007)

AB 32 requires CARB to develop a Scoping Plan which lays out California's strategy for meeting the goals. The Scoping Plan must be updated every five years. In December 2008, the Board approved the initial Scoping Plan, which included a suite of measures to sharply cut GHG emissions. Table 4.7-3, *Scoping Plan GHG Reduction Measures Towards 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the Year

Table 4.7-3 Scoping Plan GHG Reduction Measures Towards 2020 Target

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e
[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.
[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 $MMTCO_2e$, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the State's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use

planning, resulting in a potential GHG reduction of 2 $MMTCO_2e$ (or approximately 1.2 percent of the GHG reduction target). (CARB, 2014)

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team (CAT) early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 metric tons of carbon dioxide equivalent ($MTCO_2e$). As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 $MTCO_2e$, or approximately 16 percent (down from 28.5 percent), from the BAU condition.

In May 2014, CARB approved the First Update to the Climate Change Scoping Plan (Update), which builds upon the initial Scoping Plan with new strategies and recommendations. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals, highlights the latest climate change science and provides direction on how to achieve long-term emission reduction goal described in Executive Order S-3-05. The Update recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 $MTCO_2e$ 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 $MTCO_2e$. Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 $MTCO_2e$ (down from 509 $MTCO_2e$), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition. (CARB, 2014)

In January 2017, CARB released the draft Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update would reflect the 2030 target of a 40 percent reduction below 1990 levels, set by Senate Bill (SB) 32. Key GHG emissions reductions programs that the draft Second Update proposes to build upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce methane emissions from agricultural and other wastes. It should be noted the proposed Second Update was under consideration by CARB and was not adopted at the time the NOP for this EIR was published.

5. California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006), which directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed specified emissions criteria. Accordingly, SB 1368 effectively prevents

California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. SB 1368 will lead to dramatically lower GHG emissions associated with California energy demand. (CEC, n.d.)

6. Executive Order S-01-07

Executive Order (EO) S-01-07 is effectively known as the Low Carbon Fuel Standard (LCFS). The Executive Order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020. The LCFS requires fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold. (CCC, n.d.)

7. Senate Bill 1078

Senate Bill (SB) 1078 establishes the California Renewables Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20% of their renewable power by December 31, 2017 for the purposes of increasing the diversity, reliability, public health, and environmental benefits of the energy mix. (CCC, n.d.)

8. Senate Bill 107

SB 107 directed California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of renewable electricity (Renewable Portfolio Standard) generated per year, from 17% to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2010. (CCC, n.d.)

9. Executive Order S-14-08

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08, revising California's existing Renewable Portfolio Standard (RPS) upward to require all retail sellers of electricity to serve 33% of their load from renewable energy sources by 2020. In order to meet this new goal, a substantial increase in the development of wind, solar, geothermal, and other "RPS eligible" energy projects will be needed. Executive Order S-14-08 seeks to accelerate such development by streamlining the siting, permitting, and procurement processes for renewable energy generation facilities.

10. Senate Bill 97

The CEQA Guideline amendments do not identify a quantitative threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The GHG analysis thresholds incorporated into the CEQA Guidelines' Environmental Checklist (Guidelines Appendix

G) are addressed in this EIR. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010. (OPR, n.d.)

11. Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). CARB will periodically review and update the targets, as needed. (CARB, 2017b)

Each of California's MPOs must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate "alternative planning strategy" (APS) to meet the targets. The APS is not a part of the RTP. (CARB, 2017b)

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the APS. Developers can get relief from certain environmental review requirements under CEQA if their new residential and mixed-use projects are consistent with a region's SCS (or APS) that meets the targets (see Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28.). (CARB, 2017b)

12. Executive Order B-30-15 & Senate Bill 32

On April 29, 2015, Governor Brown issued Executive Order B-30-15, which sets a goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030. The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal set by former Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80 percent below 1990 greenhouse gas emissions levels by 2050). (CCC, n.d.)

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 GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80% below 1990 levels by 2050.

At this time, no further analysis is necessary or required by CEQA as it pertains to Executive Order B-30-15 and SB 32 because the Project's horizon (buildout) year would occur in 2020. Pursuant to guidance from the Association of Environmental Professionals (AEP), GHG emissions "…should be identified for the project horizon year and lead agencies should consider the project horizon year when applying a threshold of

significance" (AEP, 2016, p. 32). Because the Project's opening year would be 2020 the Project's GHG emissions are instead evaluated against California Assembly Bill 32 (AB 32), which identifies a target to reduce GHG emissions statewide to 1990 levels by 2020. Demonstrating compliance with AB 32's target for 2020 also would show that the Project would not inhibit the State's ability to achieve the 2030 target established by SB 32, as the bulk of the GHG reductions needed by 2030 would occur at the state and regional levels and compliance with the AB 32 threshold would demonstrate that the Project is on trajectory to meet the year 2030 SB 32 emissions target.

D. Local Plans, Policies, and Regulations

1. City of Chino Climate Action Plan

The City adopted the Chino Climate Action Plan (CAP) on November 19, 2013; and the CAP went into full effect as of January 2, 2014. The CAP is the City of Chino's long-range plan to reduce local GHG emissions that contribute to climate change. The components of the Chino CAP that are applicable to private development are implemented through City of Chino Municipal Code Chapter 15.45. As part of the CAP, the City of Chino selected a goal to reduce the City's GHG emissions to a level 15 percent below its 2008 GHG emissions levels by 2020, which the City determined would achieve the GHG emissions reduction mandates of AB 32 and also would be consistent with the recommendations contained in the CARB AB 32 Scoping Plan to meet the State's GHG reduction goals (City of Chino, 2013a, p. 13). The CAP consists of regulations and requirements to achieve the 15 percent GHG reduction goal of the CAP. The CAP is also intended to support tiering and streamlining of future projects within the City of Chino pursuant to CEQA Guidelines §§ 15152 and 15183.5. Individual development projects such as the proposed Project are required to demonstrate consistency with applicable measures from the CAP. The City concluded that City-wide GHG emissions consistent with the CAP would result in a less-than-significant environmental impact (Chino, 2013, pp. 5, 13).

A majority of the local GHG reduction policies specified in the adopted CAP require compliance with existing City ordinances and/or provide guidance to City staff and decision-makers to ensure that GHGs are reduced at a policy level; as such, a majority of the GHG reduction policies specified in the CAP are not directly applicable to private development projects (Chino, 2013, pp. 21-54). However, the CAP does establish performance standards for new development projects to reduce GHG emissions through implementation of one or a combination of the following three (3) options: Option 1) exceed by 3-percent the mandatory California Energy Code (Title 24, Part 6) standards in effect at the time of development application submittal; Option 2) achieve an equivalent reduction through voluntary measures in the California Green Building Standards Code (Title 24, Part 11, CalGreen) in effect at the time of development application submittal; or Option 3) provide other equivalent GHG reductions through design measures that would result in GHG emissions reductions of 0.04 metric tons (MT) of carbon dioxide equivalent (CO_2e) per residential dwelling unit per year and/or 0.11 MT CO_2e per thousand square feet (TSF) of commercial/industrial use per year (pursuant to City of Chino Municipal Code § 15.45.070).

A lawsuit challenging the validity of the City's CAP was dismissed by the California Superior Court and the CAP and its EIR (SCH No. 2013071037) were determined by the Court to be in compliance with California law. Therefore, for purposes of this EIR, the analysis considers the proposed Project's consistency with the CAP, which the City of Chino implements with full force and effect.

4.7.3 Methodology for Estimating Greenhouse Gas Emissions

The California Emission Estimator Model (CalEEMod), developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the SCAQMD and air pollution control districts across the state, was used to quantify GHG emissions from Project-related construction and operational activities. CalEEMod is the software analysis tool recommended by SCAQMD for the quantification of GHG emissions associated with the construction and operation of land development projects because it is the only software model maintained by CAPCOA and incorporates locally-approved emission factors and methodologies for estimating pollutant emissions. The most recent version of CalEEMod available at the time the NOP for this EIR was published was used in the Project analysis (v2016.3.2, released on October 17, 2017). (Urban Crossroads, 2018c, p. 42) Inputs and outputs from the model runs for both Project-related construction and operational activities are provided in Appendix 3.1 of *Technical Appendix G*.

Although CalEEMod is a comprehensive analysis tool, CalEEMod is limited to quantifying GHG emissions that are known as of the date of release of the model, there may be sources of GHG emissions that are not known (or not quantifiable) at this time but may be measurable by the time the Project is constructed and operational. Furthermore, CalEEMod relies on data published by the CARB and other data sources to be representative of local/regional averages which may not be completely representative of the Project's construction and/or operational characteristics (and may slightly underestimate or overestimate the Project's emissions). Lastly, not all the CalEEMod calculation data files are known or publicly available for review, although it is reasonable to assume that the data contained in CalEEMod is accurate and grounded in science because CalEEMod is developed by CAPCOA in collaboration with 35 local air pollution control districts.

A life-cycle analysis (LCA), which assesses economy-wide GHG emissions from construction (i.e., the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) and operation, was not conducted for the Project due to the lack of scientific consensus on LCA methodology. A LCA depends on emission factors or econometric factors that are not well established for all processes as of the date the NOP for this EIR was published. Additionally, SCAQMD recommends analyzing a project's direct and indirect GHG emissions generated within California in-lieu of a LCA because the life-cycle effects from a project could occur outside of California and these effects might not be well understood or well documented and would be infeasible to mitigate. (Urban Crossroads, 2018c, p. 42)

A. Methodology for Estimating Project-Related Construction Emissions

The Project's construction-related GHG emissions were calculated using the same methodology, construction schedule information, and equipment fleet information that were used to calculate construction-related criteria air pollutant emissions, and as previously described in detail in EIR Subsection 4.3, *Air Quality* (Urban Crossroads, 2018c, p. 42). Refer to EIR Subsection 4.3 and *Technical Appendix G* for a detailed description of the methodology used to calculate the Project's construction GHG emissions.

In accordance with the SCAQMD recommendations, the Project's construction-related GHG emissions were quantified, amortized over a 30-year period, and then added to the sum of the Project's annual operational GHG emissions (Urban Crossroads, 2018c, p. 43).

B. Methodology for Estimating Project-Related Operational Emissions

The Project's operational GHG emissions were calculated using the same methodology that was used to calculate operational criteria air pollutant emissions, and as previously described in detail in EIR Subsection 4.3, *Air Quality* (Urban Crossroads, 2018c, pp. 43-45). Refer to EIR Subsection 4.3 and *Technical Appendix G* for a detailed description of the methodology used to calculate the Project's operational GHG emissions.

4.7.4 Basis for Determining Significance

In order to assess the significance of a project's environmental impacts, it is necessary to identify quantitative or qualitative thresholds that, if exceeded, would constitute a finding of significance. As discussed above in Subsection 4.7.1, that although the Project's estimated GHG emissions can be calculated, the direct impacts of Project-related emissions on GCC and global warming cannot be determined on the basis of available science because of the small proportion of the Project's GHG emissions relative to worldwide sources of GHG. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect the global climate. (Urban Crossroads, 2018c, p. 8)

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project has no potential to result in a direct impact to GCC; rather, Project-related contributions to GCC, if any, only have potential significance on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively considerable manner.

The CEQA Guidelines, as of the publication date of the NOP for this EIR (September 23, 2017), indicate that a project would result in a significant impact on climate change if a project were to:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gas gases.

As part of the November, 30, 2015, decision in *Center for Biological Diversity v. California Department of Fish and Wildlife ("Newhall Ranch")*, the California Supreme Court outlined four potential pathways that CEQA compliance documents could use to determine if GHG emissions from a specific project would be significant under Threshold "a":

- Substantiation of Project Reductions from "Business as Usual" (BAU). A lead agency may use a BAU comparison based on the CARB Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the "data behind the Scoping Plan's business-as-usual model" to determine the necessary project level reductions from new land use development at the proposed location;

- Compliance with Regulatory Programs or Performance-based Standards. A lead agency "might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities;

- Compliance with GHG Reduction Plans or Climate Action Plans (CAPs). A lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis; or

- Compliance with Local Air District Thresholds. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts.

Based on the foregoing guidance from the California Supreme Court, GHG emissions that are consistent with the City of Chino's CAP would result in a less-than-significant impact under Threshold "a." The City of Chino's CAP is a geographically-specific GHG emissions reduction plan that was adopted by the City for purposes of reducing City-wide GHG emissions in a manner consistent with AB 32 and applicable state legislation. Further, the validity of the City's CAP was challenged and the challenge was dismissed by the California Superior Court. As such, the Court upheld the validity of the CAP and the City of Chino enforces the CAP with full force and effect. For purposes of evaluation under CEQA, the City of Chino determined that GHG emissions from a private development project found to be consistent with the CAP would result in a less-than-significant impact to the environment pursuant to Threshold "a."

4.7.5 Impact Analysis

Threshold a:	***Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

The City determined that GHG emissions consistent with the City's CAP would achieve the GHG emissions reduction mandate of AB 32 and would result in a less-than-significant impact to the environment (Chino, 2013, pp. 5, 13). The City's CAP is codified as Chapter 15.45 of the Chino Municipal Code and is applicable to all new development projects in the City. The Project's Master Site Assessment and/or Site Assessment proposals would receive conditions of approval requiring compliance with the CAP, and the City would review future Project-related development actions, including grading and building permit applications, to assure compliance with the Master Site Approval and Site Approval conditions of approval. With mandatory compliance with applicable measures of the City of Chino CAP, the Project would not generate GHG emissions that have a substantial effect on the environment. Impacts would be less than significant.

For informational purposes, annual GHG emissions associated with development of the Project – in consideration of the Project's compliance with the CAP, specifically Section 15.45.070.1 of the Chino Municipal Code – are summarized in Table 4.7-4, *Project Annual GHG Emissions*.

Table 4.7-4 Project Annual GHG Emissions

Emission Source	Emissions (metric tons per year)			
	CO2	CH_4	N_2O	Total CO_2e
Annual construction-related emissions amortized over 30 years	92.50	0.02	0.00	92.92
Area	0.12	3.20E-05	0.00	0.13
Energy	406.53	0.02	3.96E-03	408.10
Mobile (Passenger Cars)	4,394.57	0.09	0.00	4,396.81
Mobile (Trucks)	36,084.64	0.78	0.00	36,104.13
Mobile (Tractor Parking)	1,136.81	0.21	0.00	1,142.16
On-Site Equipment	431.22	0.14	0.00	434.71
Waste	90.88	5.37	0.00	225.15
Water Usage	491.90	3.61	0.09	608.51
Total CO_2E (All Sources)	**43,412.62**			

Source: (Urban Crossroads, 2018c, Table 3-1)

Threshold b: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City of Chino's CAP was designed to further GHG reduction efforts at the local level. Because the Project would comply with the provisions of the City's CAP would not conflict with the City's CAP (as summarized under the analysis for Threshold "a"), the Project and its implementing actions would reflect specific local requirements that would substantially lessen GHG emissions.

The Project also would comply with a number of regulations, policies, plans, and policy goals that would further reduce GHG emissions, including Title 24 California Building Standards Code (CBSC), Assembly Bill 32 (AB 32), and Senate Bill 32 (SB 32), which are regulations particularly applicable to the Project.

The Project would include contemporary, energy-efficient/energy-conserving design features and operational procedures. Parcel delivery land uses are not inherently energy-intensive and the total Project energy demands would be comparable to, or less than, other goods movement projects of similar scale and configuration due to the Project's modern construction and requirement to be constructed in accordance with the most recent CBSC (Urban Crossroads, 2018f, p. 1). The CBSC includes the California Energy Code, or Title 24, Part 6 of the California Code of Regulations, also titled The Energy Efficiency Standards for Residential and Nonresidential Buildings. The California Energy Code was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated approximately every three years to improve energy efficiency by allowing incorporating new energy efficiency technologies and methods. The Project would be required to comply with all applicable provisions of the CBSC. As such, the Project's energy demands would be minimized through design features and operational programs that, in aggregate, would ensure that Project energy efficiencies would comply with – or exceed – incumbent CBSC energy efficiency

requirements, thereby minimizing GHG emissions produced during from energy consumption. The Project has no potential to be inconsistent with the mandatory regulations of the CBSC.

As previously discussed in Subsection 4.7.2B, CARB identified measures in its Scoping Plan that would reduce statewide GHG emissions and achieve the emissions reductions goals of AB 32. Thus, projects that are consistent with the CARB Scoping Plan would not conflict with AB 32's mandate to reduce state GHG emissions. Table 4.7-5, *CARB Scoping Plan Consistency*, presents the 39 recommended actions identified by CARB in its Scoping Plan. Of the 39 measures identified, those that would be applicable to the Project consist primarily of actions related to energy efficiency, green buildings, recycling and waste, sustainable forests, and water use. A summary of the Project's consistency with the CARB Scoping Plan recommended actions is presented on the following pages and also summarized in Table 4.7-5.

Table 4.7-5 CARB Scoping Plan Consistency

Action	Supporting Measures[1]	Consistency
Cap-and-Trade Program	--	Not Applicable. The proposed parcel delivery facility is not a major source of stationary industrial emissions. These programs involve capping emissions from electricity generation, industrial facilities that include major stationary source emissions, and broad scoped fuels.
Light-Duty Vehicle Standards	T-1	Not Applicable. This is a statewide measure establishing vehicle emissions standards.
Energy Efficiency	E-1	Consistent. The project will include a variety of building, water, and solid waste efficiencies consistent with 2016 CALGREEN requirements.
	E-2	
	CR-1	
	CR-2	
Renewables Portfolio Standard	E-3	Not Applicable. Establishes the minimum statewide renewable energy mix.
Low Carbon Fuel Standard	T-2	Not Applicable. Establishes reduced carbon intensity of transportation fuels.
Regional Transportation-Related Greenhouse Gas Targets	T-3	Not Applicable. This is a statewide measure and is not within the purview of this Project.
Vehicle Efficiency Measures	T-4	Not Applicable. Identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.
Goods Movement	T-5	Not Applicable. Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. While these measures are yet to be implemented and will be voluntary, the proposed Project would not interfere with their implementation and would comply with any requirements as established by ARB.
	T-6	

[1] Supporting measures can be found at the following link: http://www.arb.ca.gov/cc/scopingplan/2013_update/appendix_b.pdf

Table 4.7-5 CARB Scoping Plan Consistency

Action	Supporting Measures[1]	Consistency
Million Solar Roofs (MSR) Program	E-4	Not Applicable. The MSR program sets a goal for use of solar systems throughout the state as a whole. The project currently does not include solar energy generation. Notwithstanding, the State is on track to meet the objectives of the MSR program by the end of 2019[2].
Medium- & Heavy-Duty Vehicles	T-7	Not Applicable. MD and HD trucks and trailers working from the proposed parcel delivery facility will be subject to aerodynamic and hybridization requirements as established by ARB; no feature of the project would interfere with implementation of these requirements and programs.
	T-8	
Industrial Emissions	I-1	Not Applicable. The proposed parcel delivery facility is not a major source of stationary industrial emissions. These measures are applicable to large industrial facilities with major stationary sources (> 500,000 MTCOE2/YR) and other intensive uses such as refineries.
	I-2	
	I-3	
	I-4	
	I-5	
High Speed Rail	T-9	Not Applicable. Supports increased mobility choice.
Green Building Strategy	GB-1	Consistent. The project will include a variety of building, water, and solid waste efficiencies consistent with 2016 CALGREEN requirements.
High Global Warming Potential Gases	H-1	Not Applicable. The proposed parcel delivery facility is not substantial sources of high GWP emissions and will comply with any future changes in air conditioning, fire protection suppressant, and other requirements.
	H-2	
	H-3	
	H-4	
	H-5	
	H-6	
	H-7	
Recycling and Waste	RW-1	Consistent. The project will be required recycle a minimum of 50 percent from construction activities and parcel delivery operations per State and County requirements.
	RW-2	
	RW-3	
Sustainable Forests	F-1	Consistent. The project will increase carbon sequestration by increasing on-site trees per the project landscaping plan.
Water	W-1	Consistent. The project will include use of low-flow fixtures and efficient landscaping per State requirements.
	W-2	
	W-3	
	W-4	
	W-5	
	W-6	
Agriculture	A-1	Not Applicable. The project is not an agricultural use.

Source: (Urban Crossroads, 2018c, Table 3-2)

- Energy Efficiency & Green Building Strategy: Actions E-1, E-2, CR-1, CR-2, and GB-1 target regulatory and building practices to increase energy efficiency. The Project is designed to surpass the incumbent Title 24 Energy Efficiency standards and would not conflict with these actions.

[2] https://www.energy.ca.gov/renewables/tracking_progress/documents/renewable.pdf

Based on the foregoing, implementation of the Project would not conflict with or preclude implementation of the CARB Scoping Plan energy efficiency or green building strategy actions. (Urban Crossroads, 2018c, pp. 47-50)

- Recycling and Waste: Actions RW-1 through RW-3 involve reducing methane emissions at landfills, increasing waste diversion, and mandating commercial recycling. The Project will be required to recycle a minimum of 50 percent from construction activities and parcel delivery operations per State and County requirements; therefore, the Project and its implementing actions would not conflict with the CARB Scoping Plan recycling and waste actions. (Urban Crossroads, 2018c, pp. 47-50)

- Sustainable Forests: Action F-1 targets preserving forest sequestration and encouraging the use of forest biomass for sustainable energy generation. The Project will increase carbon sequestration by increasing on-site trees per the Project landscaping plan. Based on the foregoing, the Project and its implementing actions would not conflict or preclude implementation of the CARB Scoping Plan sustainable forest actions. (Urban Crossroads, 2018c, pp. 47-50)

- Water: Actions W-1 through W-6 are applicable to development proposals like the Project; however, because Project implementation would not exceed the audit threshold for these actions, the Project would be considered consistent with Actions W-1 through W-6. The Project will include use of low-flow fixtures and efficient landscaping per State requirements. Based on the foregoing, operation of the Project would not conflict with or preclude implementation of the CARB Scoping Plan water use actions. (Urban Crossroads, 2018c, pp. 47-50)

As demonstrated by the foregoing analysis, the Project would not conflict with or preclude implementation of the CARB Scoping Plan.

In April 2015, Governor Edmund Brown Jr. signed EO B-30-15, which advocated for a statewide GHG-reduction target of 40 percent below year 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In September 2016, Governor Brown signed the Senate Bill (SB) 32. SB 32 formally established a statewide goal to reduce GHG emissions to 40 percent below year 1990 levels by 2030. To date, no statutes or regulations have been adopted to translate the year 2050 GHG reduction goal into comparable, scientifically-based statewide emission reduction targets. (Urban Crossroads, 2018c, p. 27)

According to research conducted by the Lawrence Berkeley National Laboratory and supported by the CARB, California, under its existing and proposed GHG reduction policies, is on track to meet the years 2020 and 2030 reduction targets established by AB 32 and SB 32, respectively (Urban Crossroads, 2018c, p. 27). As described above, the Project would not conflict with or obstruct implementation of the CARB Scoping Plan; therefore, the Project would not interfere with the State's ability to achieve the year 2030 GHG-reduction target established by SB 32.

Rendering a significance determination for year 2050 GHG emissions relative to EO B-30-15 would be speculative because EO B-30-15 establishes a goal more than three decades into the future; no agency with GHG subject matter expertise has adopted regulations to achieve these statewide goals at the project-level;

and, available analytical models cannot presently quantify all project-related emissions in those future years. Further, due to the technological shifts anticipated and the unknown parameters of the regulatory framework in 2050, available GHG models and the corresponding technical analyses are subject to limitations for purposes of quantitatively estimating the Project's emissions in 2050. (Urban Crossroads, 2018c, pp. 32-33)

As described on the preceding pages, the Project would not conflict with the State's ability to achieve the State-wide GHG reduction mandates and would be consistent with applicable policies and plans related to GHG emissions reductions. Implementation of the Project would not actively interfere with any future federally-State, or locally-mandated retrofit obligations enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets, including that established under Executive Order S-3-05, Executive Order B-30-15, or SB 32. For example, California has set a goal to obtain 100 percent of its electric power from zero-emission sources by 2045, and the parcel delivery use proposed by the Project would be served by energy purveyors that will be required to increasingly rely on zero-emission sources. Additionally, vehicular traffic associated with the Project would be subject to increasingly stringent federal and State standards for fuel efficiency and related air emissions. Thus, the Project would be directly or indirectly obligated to comply with federally-, State-, and locally-mandated energy efficiency standards intended to reduce GHG emissions; the Project would not obstruct the implementation of any such future requirements. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and would result in a less-than-significant impact.

4.7.6 Cumulative Impact Analysis

GCC occurs as the result of global emissions of GHGs. An individual development project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines § 15130[f]). Accordingly, the analysis provided in Subsection 4.7.5 reflects a cumulative impact analysis of the effects related to the Project's GHG emissions. As concluded in Subsection 4.7.5, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Accordingly, the Project would not result in a cumulatively-considerable impact related to GHG emissions.

4.7.7 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The GHG emissions generated by the Project would be consistent with the City of Chino CAP. As such, implementation of the Project would not generate substantial GHG emissions – either directly or indirectly – that would have a significant impact on the environment.

Threshold b: Less-than-Significant Impact. The Project would be consistent with applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.

4.7.8 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.8 HAZARDS AND HAZARDOUS MATERIALS

The information and analysis presented in this Subsection is primarily based on two (2) documents that were prepared for the Project site by Anacapa Geoservices, Inc. (hereafter, "Anacapa"). A report titled, "Phase I Environmental Assessment Chino Airport Parcel Delivery Facility," dated January 15, 2018, addressed the potential presence or absence of toxic substances and/or hazardous materials on the Project site under existing conditions, and is included as *Technical Appendix H1* to this EIR. A letter prepared by Anacapa and dated March 2018 that addresses the potential for pesticide-impacted soil and/or groundwater on the site is included as *Technical Appendix H2* to this EIR. This Subsection also relies on information from the City of Chino General Plan (Chino, 2010a); the City of Chino General Plan EIR (Chino, 2010b); and Google Earth (Google Earth, 2018). Refer to Section 7.0, *References*, for a complete list of reference sources.

For the purposes of this EIR, the term "toxic substance" is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances.

For purposes of this EIR, the term "hazardous material" is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness. Hazardous waste is defined in the California Code of Regulations, Title 22, § 66261.3. The defining characteristics of hazardous waste are: ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (strong acids and bases), reactivity (explosives or generates toxic fumes when exposed to air or water), and toxicity (materials listed by the United States Environmental Protection Agency (USEPA) as capable of inducing systemic damage to humans or animals). Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, §§ 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous nature or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

4.8.1 EXISTING CONDITIONS

As described in EIR Section 2.0, and illustrated on Figure 2-4, *Aerial Photograph*, the Project site is used for agricultural operations. The western portion of the site is occupied by two (2) residences, a dairy farm with approximately 700 head of cattle, and several agricultural support buildings (e.g., cattle pens and structures for shelter, feed, and water). The eastern portion of the site contains cultivated fields used to grow cattle feed.

A. Historical Review, Regulatory Records Review, and Field Reconnaissance

1. Historical Review

Anacapa reviewed various sources of information to determine the historical use of the Project site, including historical aerial photographs, historical topographic maps, Environmental Data Resources (EDR)-Sanborn collection of regulatory database records, city directories, historical site occupants, and historical site

ownership records. Refer to *Technical Appendix H1* of this EIR for a more detailed description of Anacapa's research results.

The Project site consisted of farmland with orchards, row crops, and fallow fields from 1938 through 1948. In 1953, orchards were removed; however, portions of the site continued to be used for row crops and fallow fields. By 1966, dairy operations were constructed on the western portion of the site and continue to exist on the Project site today, along with agricultural land on the eastern portion of the site. (Anacapa, 2018a, pp. 11-12)

The area surrounding the Project site was developed with farmland, a few farm houses, and sparse roads by 1938. By 1948, two (2) airport runways were constructed at Chino Airport located approximately 0.10-mile southwest of the Project site. The Project area was primarily agricultural fields, with minimal homes, through 1953. By 1966, dairy farms begin to appear in the area surrounding the Project site and are a prevalent use by 1985. Dairy farms continued to dominate the Project area until the early 2000s, when master-planned residential development began to appear south of Kimball Avenue. The trend for urban development in the Project area is continuing; in 2016, the Watson Industrial Park Chino located east of Flight Avenue was developed. (Anacapa, 2018a, pp. 11-13)

2. Regulatory Records Review

Anacapa researched federal, State, and local environmental records databases to identify properties within one mile of the Project site with reported environmental issues. A summary of the research results is provided below; a detailed description of the environmental record review results is included in *Technical Appendix H1* of this EIR.

The Project site was identified on one federal environmental records database (the Emergency Response Notification System related to a potential historic release of a hazardous substance at the J&D Starr Dairy) but was not listed on any State or local environmental records database. Because of the Project site's topography, assumed groundwater gradient, and current regulatory status, it is unlikely that any release of a hazardous substance at the J&D Starr Dairy negatively contributed to an environmental condition at the Project site, at any abutting property, or downstream. (Anacapa, 2018a, pp. 1, 9-10)

Properties within a one-mile radius of the Project site are listed on a combined 17 federal, State, and/or local hazardous materials-related databases (Anacapa, 2018a, Appendix B). Refer to *Technical Appendix H1* for a detailed summary of all the hazardous materials sites in proximity to the Project site. None of the hazardous materials database listings for properties near the Project site represent a substantial environmental risk to the Project site (Anacapa, 2018a, p. 1).

3. Field Reconnaissance

Anacapa conducted an inspection of the Project site on January 3, 2018. During the site inspection, Anacapa observed the property to consist of two residences and dairy support buildings that were constructed after 1966 but before 1975 and open land currently being used as a dairy and fallow cropland. Anacapa observed on-site storage of hazardous and non-hazardous substances, including fuels and lubricants, in support of the existing

dairy operation. An above ground storage tank (AST) was observed on the Project site (abutting a dairy support building in the northwestern portion of the site); Anacapa presumed the AST contained diesel fuel but could not discern if the AST was active or contained any liquids. Abundant debris is "staged" on the northeast corner of the site, near the intersection of Merrill Avenue and Flight Avenue. Minor amounts of windblown trash (paper cups, plastic, etc.) also were observed across the site. No evidence of underground storage tanks (USTs), stained or odorous soil, significant chemical release, or underground pipelines, sumps, waste pits, ponds, lagoons, were found on the Project site; however, given the age of the structures on-site, Anacapa determined it was reasonable to assume that septic systems are present on the site. No polychlorinated biphenyls (PCBs) were observed on the site; but, overhead powerlines were observed along Merrill Avenue. (Anacapa, 2018a, pp. 7-8, Appendix B)

B. Airport Hazards

The Project site is located approximately 0.10-mile east and north of the nearest runway at the Chino Airport. At present, there is no valid Airport Land Use Compatibility Plan (ALUCP) for the Chino Airport, as the most recent ALUCP for the Chino Airport (adopted in 1991) does not reflect the Airport's current Master Plan. As previously shown in Figure 2-4, the Project site is located within the Airport Influence Area (AIA) for the Chino Airport, with the southern portion of the Project site located within Airport Safety Zone II, and the remainder of the property located within Airport Safety Zone III. Within Safety Zone II, the 1991 ALUCP discourages residential development and recommends that non-residential uses in enclosed structures be limited to no more than 25 persons per acre. Within Safety Zone III, the 1991 ALUCP recommends no restriction on residential or other land uses. (Chino, 2010a, Figure LU-4; ALUC, 1991, Figure III-7; Chino, 2003, pp. 103-104 and Exhibit 5.6-1)

C. Wildland Fire Hazards

The Project site is located in a portion of the City of Chino that is not located adjacent to any wildlands. The Chino General Plan designated the Project site and its surrounding area as being subject to "little or no threat" from wildland fires (Chino, 2010a, Figure SAF-4). According to the California Department of Forestry and Fire Protection (Cal Fire), the Project site is located within a non-very high fire hazard severity zone (CalFire, 2008).

4.8.2 Applicable Environmental Plans, Policies, and Regulations

Hazardous materials and hazardous wastes are regulated by various federal, State, and local regulations to protect public health and the environment. This section summarizes the overall regulatory framework governing hazardous materials management that is applicable to the Project and the Project site.

A. Federal Plans, Policies, and Regulations

1. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA)

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as

well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the Environmental Protection Agency (EPA) was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. (EPA, 2017e)

The EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, the EPA obtains private party cleanup through orders, consent decrees, and other small party settlements. The EPA also recovers costs from financially viable individuals and companies once a response action has been completed. (EPA, 2017e)

The EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies. (EPA, 2017e)

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Also, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). (EPA, 2017e)

2. Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) gives the EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. (EPA, 2017f)

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program. (EPA, 2017f)

3. Hazardous Materials Transportation Act (HMTA)

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property." (OSHA, n.d.)

Hazardous materials regulations are subdivided by function into four basic areas:

- Procedures and/or Policies 49 CFR Parts 101, 106, and 107
- Material Designations 49 CFR Part 172

- Packaging Requirements 49 CFR Parts 173, 178, 179, and 180
- Operational Rules 49 CFR Parts 171, 173, 174, 175, 176, and 177 (OSHA, n.d.)

The HMTA is enforced by use of compliance orders [49 U.S.C. 1808(a)], civil penalties [49 U.S.C. 1809(b)], and injunctive relief (49 U.S.C. 1810). The HMTA (Section 112, 40 U.S.C. 1811) preempts State and local governmental requirements that are inconsistent with the statute, unless that requirement affords an equal or greater level of protection to the public than the HMTA requirement. (OSHA, n.d.)

4. Hazardous Materials Transformation Uniform Safety Act of 1990

In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting state, local, and federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property. (OSHA, n.d.)

The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials. (OSHA, n.d.)

5. Occupational Safety and Health Act (OSHA)

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. (EPA, 2017g)

In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states.

6. Toxic Substances Control Act

The Toxic Substances Control Act of 1976 provides the EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint. (EPA, 2017h)
Various sections of the TSCA provide authority to:

- Require, under Section 5, pre-manufacture notification for "new chemical substances" before manufacture

- Require, under Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found
- Issue Significant New Use Rules (SNURs), under Section 5, when it identifies a "significant new use" that could result in exposures to, or releases of, a substance of concern.
- Maintain the TSCA Inventory, under Section 8, which contains more than 83,000 chemicals. As new chemicals are commercially manufactured or imported, they are placed on the list.
- Require those importing or exporting chemicals, under Sections 12(b) and 13, to comply with certification reporting and/or other requirements.
- Require, under Section 8, reporting and record-keeping by persons who manufacture, import, process, and/or distribute chemical substances in commerce.
- Require, under Section 8(e), that any person who manufactures (including imports), processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment to immediately inform EPA, except where EPA has been adequately informed of such information. EPA screens all TSCA b§8(e) submissions as well as voluntary "For Your Information" (FYI) submissions. The latter are not required by law but are submitted by industry and public interest groups for a variety of reasons. (EPA, 2017h)

7. Federal Aviation Regulations Part 77

Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for:

- Evaluating the effect of the construction or alteration on operating procedures;
- Determining the potential hazardous effect of the proposed construction on air navigation;
- Identifying mitigating measures to enhance safe air navigation; and
- Charting of new objects. (FAA, 2016a)

Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA (FAA, 2016a):

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:

- within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
- within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
- within 5,000 feet of a public use heliport which exceeds a 25:1 surface.

- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed that above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location. (FAA, 2016a)

Persons failing to comply with the provisions of FAR Part 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a). (FAA, 2016a)

B. State Plans, Policies, and Regulations

1. Cal/OSHA and the California State Plan

Under an agreement with OSHA, since 1973 California has operated an occupational safety and health program in accordance with Section 18 of the federal OSHA. The State of California's Department of Industrial Relations administers the California Occupational Safety and Health Program, commonly referred to as Cal/OSHA. The State of California's Division of Occupational Safety and Health (DOSH) is the principal agency that oversees plan enforcement and consultation. In addition, the California State program has an independent Standards Board responsible for promulgating State safety and health standards and reviewing variances. It also has an Appeals Board to adjudicate contested citations and the Division of Labor Standards Enforcement to investigate complaints of discriminatory retaliation in the workplace.

Pursuant to 29 CFR 1952.172, the California State Plan applies to all public and private sector places of employment in the state, with the exception of federal employees, the United States Postal Service, private sector employers on Native American lands, maritime activities on the navigable waterways of the United States, private contractors working on land designated as exclusively under federal jurisdiction and employers that require federal security clearances. Cal/OSHA is the only agency in the state authorized to adopt, amend, or repeal occupational safety and health standards or orders. In addition, the Standards Board maintains standards for certain things not covered by federal standards or enforcement, including: elevators, aerial passenger tramways, amusement rides, pressure vessels and mine safety training. The Cal/OSHA enforcement unit conducts inspections of California workplaces in response to a report of an industrial accident, a complaint about an occupational safety and health hazard, or as part of an inspection program targeting industries with high rates of occupational hazards, fatalities, injuries or illnesses.

2. California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) (Health and Safety Code [HSC], Division 20, Chapter 6.5, Article 2, Section 25100, *et seq*.) is the primary hazardous waste statute in California. The HWCL implements RCRA as a "cradle-to-grave" waste management system in the state. It specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure its proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reuse as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and broadening requirements for permitting facilities that treat hazardous waste. It also regulates a number of waste types and waste management activities not covered by federal law (RCRA).

3. California Code of Regulations (CCR), Titles 22 and 26

A variety of California Code of Regulation (CCR) titles address regulations and requirements for generators of hazardous waste. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and facilities for treatment, storage, and disposal. Because California is a fully-authorized state according to RCRA, most regulations (i.e., 40 CFR 260, et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the EPA, the integration of state and federal hazardous waste regulations that make up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. As with the HSC, Title 22 also regulates a wider range of waste types and waste management activities than does RCRA. To aid the regulated community, California has compiled hazardous materials, waste, and toxics-related regulations from CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24 and 27 into one consolidated listing: CCR Title 26 (Toxics). However, the hazardous waste regulations are still commonly referred to collectively as "Title 22."

C. Local Plans, Policies, and Regulations

1. Local Permitting Requirements

The aforementioned federal and State hazardous materials regulations require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to obtain a hazardous materials permit and submit a business plan to its local Certified Unified Program Agency (CUPA). The CUPA also ensures local compliance with all applicable hazardous materials regulations. The CUPA with responsibility for the City of Chino is the San Bernardino County Fire Department, Hazardous Materials Division (Chino, 2010b, p. 4.7-3). The San Bernardino County Fire Department, Hazardous Materials Division also manages the following hazardous waste programs: 1) Hazardous Materials Release Response Plans and Inventory; 2) California Accidental Release Program; 3) Underground Storage Tanks; 4) Aboveground Petroleum Storage Act/Spill Prevention, Control, and Countermeasure Plan; 5) Hazardous Waste Generation and Onsite Treatment; and 6) Hazardous Materials Management Plans and Inventory.

2. Chino Airport Land Use Compatibility Plans

The Project site is located approximately 0.10-mile east and north of the nearest runway at the Chino Airport. At present, there is no valid Airport Land Use Compatibility Plan (ALUCP) for the Chino Airport, as the most recent ALUCP for the Chino Airport (adopted in 1991) does not reflect the Airport's current Master Plan

(adopted in 2006). Regardless, based on the 1991 ALUCP, the City of Chino General Plan establishes safety zones for areas within the Chino Airport AIA. As shown on Figure 2-4, *Chino Airport Safety Zones*, the southern portion of the Project site located within Airport Safety Zones I and II, and the remainder of the property located within Airport Safety Zone III. Within Safety Zone I, the General Plan and the 1991 ALUCP prohibit residential and industrial structures while discouraging residential development and recommending that non-residential uses in enclosed structures be limited to no more than 25 persons per acre within Safety Zone II. Within Safety Zone III, the General Plan and 1991 ALUCP recommend no restriction on residential or other land uses. (Chino, 2010a, Figure LU-4; ALUC, 1991, Figure III-7)

Due to the proximity of the Chino Airport to communities within Riverside County, the Riverside County Airport Land Use Commission (ALUC) adopted an ALUCP for the Chino Airport in 2008. According to the Riverside County ALUC's ALUCP for the Chino Airport, the majority Project site is located within Compatibility Zones "C" and "D," while a portion of the site falls within Compatibility Zone "A." Very tall buildings and noise sensitive land uses are prohibited within Compatibility Zones C and D; however, industrial land uses are generally permissible within these Compatibility Zones. Structures, except ones with location set by aeronautical function, are not permitted in Compatibility Zone "A." (RCALUC, 2008, Map CH-1) This information is presented for informational purposes only, as the Riverside County ALUC has no jurisdictional authority over the Project site or Project.

3. The Preserve Specific Plan

The Preserve Specific Plan also applies the Chino Airport Overlay (CAO) zoning overlay to the Project site (Chino, 2016a, Figure 9A). The CAO is intended to ensure the viability of airport operations at the Chino Airport, and to protect the health, safety, and welfare of the residents of Chino. Any proposed development within the CAO must comply with City Zoning Ordinance Section 20.09.050, *Airport Overlay District*, (Chino, 2016a, Section V, pp. 103-104).

4.8.3 Basis for Determining Significance

The proposed Project would result in a significant impact to hazards and hazardous materials if the Project or any Project-related component would:

a. Create significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials;

b. Create a significant to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;

g. Impair implementation of or physically interfere with an emergency response plan or emergency evacuation plan; or

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects related to hazards and hazardous materials that could result from development projects. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold.

4.8.4 IMPACT ANALYSIS

Threshold a:	***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***
Threshold b:	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

A. Impact Analysis for Existing Site Conditions

As previously described under Subsection 4.8.1A, portions of the Project site may contain hazardous materials or substances related to the past and on-going agricultural activities and related development. Implementation of the Project would require demolition and removal of all existing structures, improvements, and organic wastes from the Project site and, therefore, has the potential to expose construction workers, the public, and the environment to a substantial safety hazard during the Project's construction process. In the event that persistent hazards or hazardous materials are present on-site, as described below, then the Project also has the potential to expose future on-site employees, the public, and the environment to a substantial safety hazard during the Project's operation.

1. Storage Tanks

As discussed in Subsection 4.8.1, the Project site contains no evidence of RECs, USTs, or significant chemical release on the Project site. The AST found along the west side of the dairy residence, along Merrill Avenue, contains fuel and other lubricants in support of the existing dairy operation. Based on the visual inspections and database records reviewed, Anacapa did not identify any indications of releases from the AST in the vicinity of the Project site; therefore, the presence and removal of the AST would not create a negative adverse effect to the environment. (Anacapa, 2018a, p. 7) The existing AST would be required to be removed, handled,

and disposed in accordance with all applicable local and State regulations. Accordingly, implementation of the Project would not expose the public or the environment to significant hazards associated with the removal and disposal of the on-site AST from the Project site. Impacts would be less than significant.

2. Septic Systems

Although Anacapa observed no evidence of septic systems on the Project site, given the age of the dairy and historic site use, it is reasonable to assume that septic systems are present. The assumed existing septic systems on the Project site would be required to be removed, handled, and disposed in accordance with all applicable local and State regulations, including but not limited to the California Code of Regulations Title 24, Plumbing Code, Appendix H Section 1101.0, related to private sewage disposal systems (IAPMO, 2018, p. 437). Accordingly, implementation of the Project would not expose the public or the environment to significant hazards associated with the removal and disposal of the on-site septic systems from the Project site. Impacts would be less than significant.

3. Building Materials

The use of ACMs (a known carcinogen) and lead paint (a known toxin) was common in building construction prior to 1978. Because the Project site contains structures known to be constructed before 1978, there is the potential that ACMs and/or lead paint is present on the Project site.

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the federal Environmental Protection Agency (EPA). Federal asbestos requirements are found in National Emission Standards for Hazardous Air Pollutants (NESHAP) within the Code of Federal Regulations (CFR) Title 40, Part 61, Subpart M, and are enforced in the Project area by the SCAQMD. In conformance with the NESHAP, SCAQMD Rule 1403 establishes survey requirements, notification, and work practice requirements to prevent asbestos emissions from emanating during building renovation and demolition activities. Assuming that ACMs are present in the existing construction debris and/or structures located on the property, then Rule 1403 requires notification of the SCAQMD prior to commencing any demolition or renovation activities. Rule 1403 also sets forth specific procedures for the removal of asbestos, and requires that an on-site representative trained in the requirements of Rule 1403 be present during the stripping, removing, handling, or disturbing of ACM. Mandatory compliance with the provisions of Rule 1403 would ensure that construction-related grading, clearing and demolition activities do not expose construction workers or nearby sensitive receptors to significant health risks associated with ACMs. Because the Project would be required to comply with AQMD Rule 1403 during demolition activities, impacts due to asbestos would be less than significant.

During demolition of the existing buildings on-site, there also is a potential to expose construction workers to health hazards associated with lead-based paint (LBP). Title 17, California Code of Regulations (CCR), Division 1, Chapter 8: Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards, defines and regulates lead-based paint. Any detectable amount of lead is regulated. The Project would be required to comply with Title 17, California Code of Regulations (CCR), Division 1, Chapter 8, which includes requirements such as employer provided training, air monitoring, protective clothing, respirators, and hand washing facilities. Mandatory compliance with these mandatory requirements would ensure that construction workers and the public are not exposed to significant LBP health hazards during demolition and/or during

transport of demolition waste to an appropriate disposal facility, and would ensure that impacts related to LBP remain less than significant.

4. Water Wells

The Project site contains several presumed water supply wells along the east side of the property; however, the wells appear to be inactive. Additionally, no oil or gas wells were observed on the site. (Anacapa, 2018a, p. 8) The abandonment of the existing water wells used by the on-site dairy operations would be required to occur in accordance with applicable State well standards including but not limited to a mandatory decommissioning and capping procedure as a part of the proposed Project's construction activities. Contaminated groundwater does not exist beneath the surface of the site; therefore, in the event of an accident during the well abandonment process, there is no potential to release contaminated groundwater. As such, a significant hazard to the public or the environment would not be created and impacts would be less than significant.

5. Pesticides

Because the Project site was used in the past for agricultural activities, there is the potential that pesticides were used on the property. However, the types of pesticides most commonly associated with adverse human health effects (organochlorides such as DDT and dieldrin) were banned from agricultural use in the early 1970s. Given the rate of degradation for organochloride pesticides, the amount of time that has passed since these pesticides could have, theoretically, been applied to the site, and the relatively low concentrations of pesticides – if any – that could have been applied to the site (aerial application is unlikely given the historical proximity of dairy farms), Anacapa concluded that pesticides do not represent a substantial hazard at the project site (Anacapa, 2018b). Accordingly, implementation of the Project would not expose on-site construction workers or future employees, the public, or the environment to significant hazards associated with soils contaminated with pesticides. Impacts would be less than significant.

6. Organic Waste

As part of normal dairy operations, manure was stockpiled on portions of the site, transported off-site on a yearly basis, and also spread over pastures in the southern portion of the site. Manure is associated with the generation of methane gas, and methane gas can leach into soils. Methane is not toxic; however, it is combustible and potentially explosive at high concentrations. Methane also has the potential to accumulate beneath foundation systems, become pressurized, and crack the floor slab of a structure and enter the interior of a building. The potential for the Project site to contain elevated methane levels is considered a significant impact for which mitigation is required.

B. Impact Analysis for Temporary Construction-Related Activities

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project site during implementation of the Project. This heavy equipment likely would be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be located on the Project site during construction. Improper use,

storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited requirements imposed by the EPA, DTSC, and the Santa Ana RWQCB. With mandatory compliance with applicable hazardous materials regulations, the Project would not create significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase. A less-than-significant impact would occur.

C. Impact Analysis for Long-Term Operation

The Project would be used as a ground parcel sorting/distribution facility that would contain a fueling island and maintenance building (for trailer maintenance only). Based on the facilities and uses proposed at the Project site, hazardous materials (e.g., diesel fuel, lubricants) would be used during the course of daily operations at the Project site. It is possible that other hazardous materials also could be used during the course of daily operations at the Project site. State and federal Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals that may be used by businesses on the Project site. Laws also are in place that require businesses to plan and prepare for possible chemical emergencies. Any business that occupies the building on the Project site and that handles/stores substantial quantities of hazardous materials (as defined in § 25500 of California Health and Safety Code, Division 20, Chapter 6.95) will require a permit from the San Bernardino County Fire Department, Hazardous Materials Division in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the San Bernardino County Fire Department and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business, and to prepare a Hazardous Materials Business Emergency Plan (HMBEP). An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material.

The operation of the proposed fueling station and trailer maintenance components of the Project would be required to comply with all applicable federal, State, and local regulations to ensure the proper transport, use, and disposal of hazardous substances (as described above and in Subsection 4.8.2). With mandatory regulatory compliance, the Project would not pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment.

Based on the foregoing information, potential hazardous materials impacts associated with long-term operation of the Project are regarded as less than significant and no mitigation is required.

Threshold c:	***Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

No existing or proposed schools are located within one-quarter mile of the Project site. The nearest school to the Project site is Cal Aero Preserve Academy, located at 15850 Main Street, approximately 0.70-mile south of the Project site (Google Earth, 2018). Accordingly, the proposed Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, and/or wastes within one-quarter mile of an existing or proposed school.

As described above under the analysis for Thresholds "a" and "b," the transport of hazardous substances or materials to-and-from the Project site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations to preclude substantial public safety hazards. Accordingly, there would be no potential for existing or proposed schools to be exposed to substantial safety hazards associated with the routine transport of hazardous substances or materials to-and-from the Project site. Thus, no impact would occur and no mitigation is required.

Refer to EIR Subsection 4.3, *Air Quality*, for analysis pertaining to human health risks associated with air pollutant emissions associated with the Project, including risks to the maximally exposed school child located more than one-quarter mile from the Project site. As concluded in EIR Subsection 4.3, *Air Quality*, the Project's toxic air contaminant emissions (and their associated health risks) would be less than significant.

Threshold d:	***Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?***

The Project site is not located on any list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (DTSC, n.d.). Accordingly, no impact would occur.

Threshold e:	***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

According to the City of Chino General Plan, the land uses and site layout proposed by the Project would be compatible within Airport Safety Zones I, II and III (Chino, 2010a, LU-24). Additionally, the Project would be consistent with the applicable provisions of the CAO. The Project would not interfere with flight operations at the Chino Airport because the buildings proposed by the Project would be no greater than 50 feet tall and the Project does not include an air travel component (e.g., runway, helipad). Because the land uses proposed by the Project would be compatible with the applicable Chino Airport Safety Zones and the CAO and because the Project would not interfere with operations at the Chino Airport, the Project would not result in safety hazards for people residing or working in the Project area. Impacts would be less than significant and mitigation is not required.

The Project site is located approximately 5.0 miles south of the nearest runway at the Ontario International Airport (Google Earth, 2018). The Project site is not located within the AIA for the Ontario International Airport; therefore, the Project would not be exposed to airport safety hazards associated with this facility (Ontario, 2011, Map 2-1).

Based on the foregoing, implementation of the proposed Project would not result in a safety hazard for people living or working on the Project area and impacts would be less than significant.

Threshold f: ***For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?***

The Project site is not located within the vicinity of a private airstrip or heliport (Google Earth, 2018). As such, implementation of the Project would have no potential to expose on-site workers to safety hazards associated with a private airfield or an airstrip. Thus, no impact would occur and no mitigation is required.

Threshold g: ***Would the Project impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route (Chino, 2010a; Chino, 2010b). During construction and long-term operation, the proposed Project would be required to maintain adequate emergency access for emergency vehicles. As part of the City's discretionary review process, the City of Chino reviewed the Project's application materials to ensure that appropriate emergency ingress and egress would be available to-and-from the Project site. The City determined that the Project would not substantially impede emergency response times in the local area. Accordingly, implementation of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan, and no impact would occur.

Threshold h: ***Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?***

The Project site is not located within a State Responsibility Area or a very high fire hazard severity zone. Neither CAL FIRE nor the City of Chino identify the Project site within an area susceptible to wildland fires and the Project site and surrounding areas generally consist of agricultural, industrial and/or residential uses, which are generally not associated with wildland fire hazards (Google Earth, 2018; CalFire, 2008; Chino, 2010a. Figure SAF-4). Accordingly, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

4.8.5 Cumulative Impact Analysis

As discussed above under the responses to Thresholds "a" and "b," the Project would be required to comply with all applicable federal, State, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would be required to comply with applicable federal,

state, and local regulations, and such uses would be subject to additional review and permits from their applicable fire department. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be reduced to a less-than-cumulatively-significant level. Accordingly, the Project's potential to contribute to a cumulatively significant hazardous materials impact would be less than significant.

The Project site is not located within one-quarter mile of an existing or planned school; therefore, the Project would not contribute to a cumulatively significant hazards/hazardous materials impact on any public or private schools located within one-quarter mile of the site.

The Project site is not located on the list of hazardous materials sites compiled pursuant to Government Code § 65962.5. In the unlikely event that hazardous materials are encountered beneath the surface of the site during grading or construction, the materials would be handled and disposed of in accordance with regulatory requirements. Therefore, the Project would not contribute to a cumulatively significant hazardous materials impact associated with a listed hazardous materials site.

As discussed above under the response to Threshold "e," the Project would not introduce any land use to the Project site that would conflict with the Chino Airport Land Use Compatibility Plan. As such, cumulatively-considerable impacts associated with airport-related hazards would be less than significant and no mitigation would be required.

The Project site is not located within the vicinity of any private airstrips or helipads. Thus, the Project has no potential to result in cumulatively significant impacts associated with such facilities.

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route; thus, there is no potential for the Project to contribute to any cumulative impacts associated with an adopted emergency response plan or emergency evacuation plan.

As discussed above under the response Threshold "h," the Project site is not located within or in close proximity to areas identified as being subject to wildland fire hazards. Additionally, as the surrounding area continues to develop, lands that are currently vacant would be developed in a manner consistent with jurisdictional requirements for fire protection and would generally decrease the fire hazard potential in the local area. As such, within the cumulative context of the Project vicinity, fire hazards are anticipated to decline over time, and the Project's contribution to cumulative wildfire potential is less than cumulatively-considerable.

4.8.6 Significance of Impacts Before Mitigation

Thresholds a and b: Significant Direct Impact. The Project site may contain soils with excessive methane gas concentrations. The handling of these soils during Project construction and the potential hazard these soils may pose to future Project site occupants is considered a significant impact. During Project operation and with mandatory compliance to federal, State, and local regulations, the Project would not create a significant hazard to the public or the environment due to routine transport, use, disposal, or upset of hazardous materials.

Threshold c: Less-than-Significant Impact. The Project site is not located within one-quarter mile of any existing or proposed school. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts to schools located more than one-quarter mile of the Project site would be less than significant.

Threshold d: No Impact. The Project site is not located on any list of hazardous materials sites complied pursuant to Government Code § 65962.5.

Threshold e: Less-than-Significant Impact. The Project is consistent with the restrictions and requirements of the Chino Airport Land Use Compatibility Plan. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.

Threshold f: No Impact. The Project site is not located within the vicinity of a private airstrip or a helipad. Accordingly, implementation of the Project would have no potential to expose on-site workers to safety hazards associated with a private airfield or an airstrip.

Threshold g: Less-than-Significant Impact. The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.

Threshold h: No Impact. The Project site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.

4.8.7 Mitigation

The following mitigation measure would preclude hazards associated with the potential presence of methane gas in on-site soils.

MM 4.8-1 Prior to the issuance of a building permit and no sooner than 30 days after rough grading is complete, a licensed engineer, geologist, or registered environmental assessor shall conduct post-grading methane testing in accordance with universally accepted methods to identify any construction procedures or building design measures, if any, required to meet City of Chino and County of San Bernardino Department of Environmental Health Services soil gas safety standards. Building design measures, which may include utility trench dams, utility conduit seals, sub-slab vents, sub-slab vapor barriers, and sub-slab gas barriers, shall be shown on the Project's construction plans.

MM 4.8-2 Prior to issuance of a building occupancy permit, the Project's engineer of record shall provide a signed letter to the City of Chino confirming that any design measures required pursuant to MM 4.8-1 were installed as designed.

4.8.8 Significance of Impacts After Mitigation

Thresholds a and b: Less-than-Significant Impact with Mitigation: Mitigation Measure MM 4.8-1 and MM 4.8-2 would ensure that the Project incorporates and design measures needed to preclude any potential adverse impact associated with subsurface methane gas. With the implementation of required mitigation, the Project would not create a significant hazard to the public or the environment associated with the release of hazardous materials.

4.9 HYDROLOGY AND WATER QUALITY

Information in this Subsection relies on two technical reports prepared for the Project site by D&D Engineering, Inc. (hereafter, "D&D"): 1) "Chino Parcel Delivery Facility Preliminary Hydrology Report," dated October 18, 2018 (D&D, 2018a) and 2) "Water Quality Management Plan For: Chino Parcel Delivery Facility," dated October 15, 2018 (D&D, 2018b). These reports are provided as *Technical Appendices I1 and I2* to this EIR, respectively.

The Project site is located within the Santa Ana River watershed and is under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). As such, information for this Subsection also was obtained from the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* (updated February 2016) and the *Integrated Regional Water Management Plan* (IRWMP) for the Santa Ana River watershed (also referred to as "One Water One Watershed," (February 4, 2014) prepared by the Santa Ana Watershed Project Authority (SAWPA). These documents are herein incorporated by reference and are available for public review at the physical locations and website addresses given in EIR Section 7.0, *References*.

4.9.1 EXISTING CONDITIONS

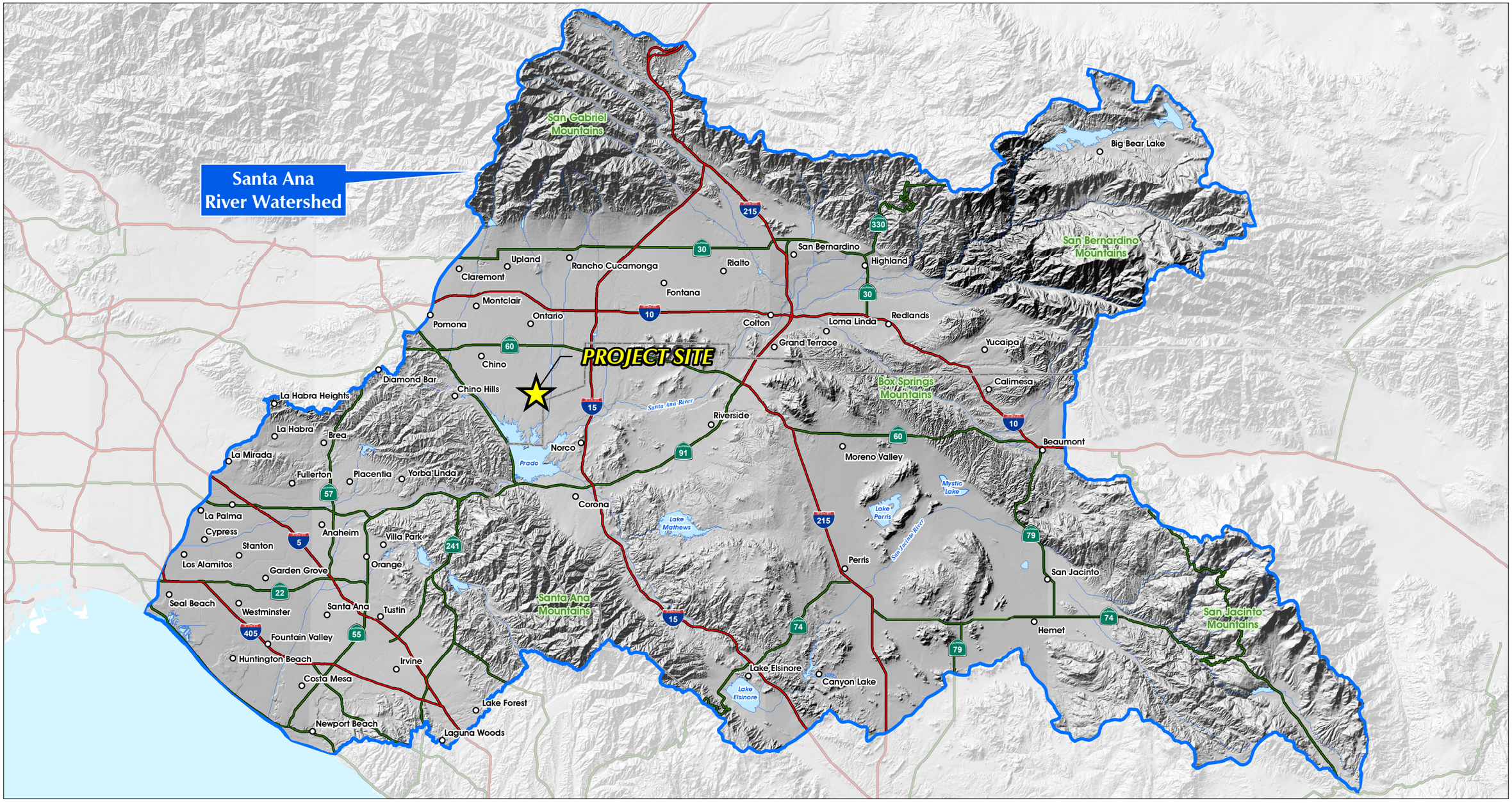
A. Regional Hydrology

The Project site is located within the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region. The Santa Ana River rises in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The total length of the Santa Ana River and its major tributaries is approximately 700 miles. (SAWPA, 2014, p. 1) The Project site's location within the Santa Ana River watershed is depicted on Figure 4.9-1, *Santa Ana Watershed Map*.

B. Site Hydrology

The Project site is divided into two drainage areas under existing conditions: the western drainage area comprises the existing dairy property and the eastern drainage area comprises the existing agricultural fields. The western drainage area receives stormwater runoff from Merrill Avenue; runoff travels through the site to an existing agricultural wastewater pond along the southern Project site boundary (north of the Remington Avenue right-of-way). The eastern drainage area also receives stormwater runoff from Merrill Avenue; runoff travels through the site in a southwesterly direction. Flight Avenue is a ridgeline that precludes runoff from entering the Project site from the east and an existing drainage ditch along the northern side of Merrill Avenue captures runoff from areas within the City of Ontario; therefore, the Project site is not tributary to areas to the north or east. (D&D, 2018a, p. 3) The Project site's existing stormwater drainage pattern is illustrated on Figure 4.9-2, *Existing Conditions Hydrology Map*.

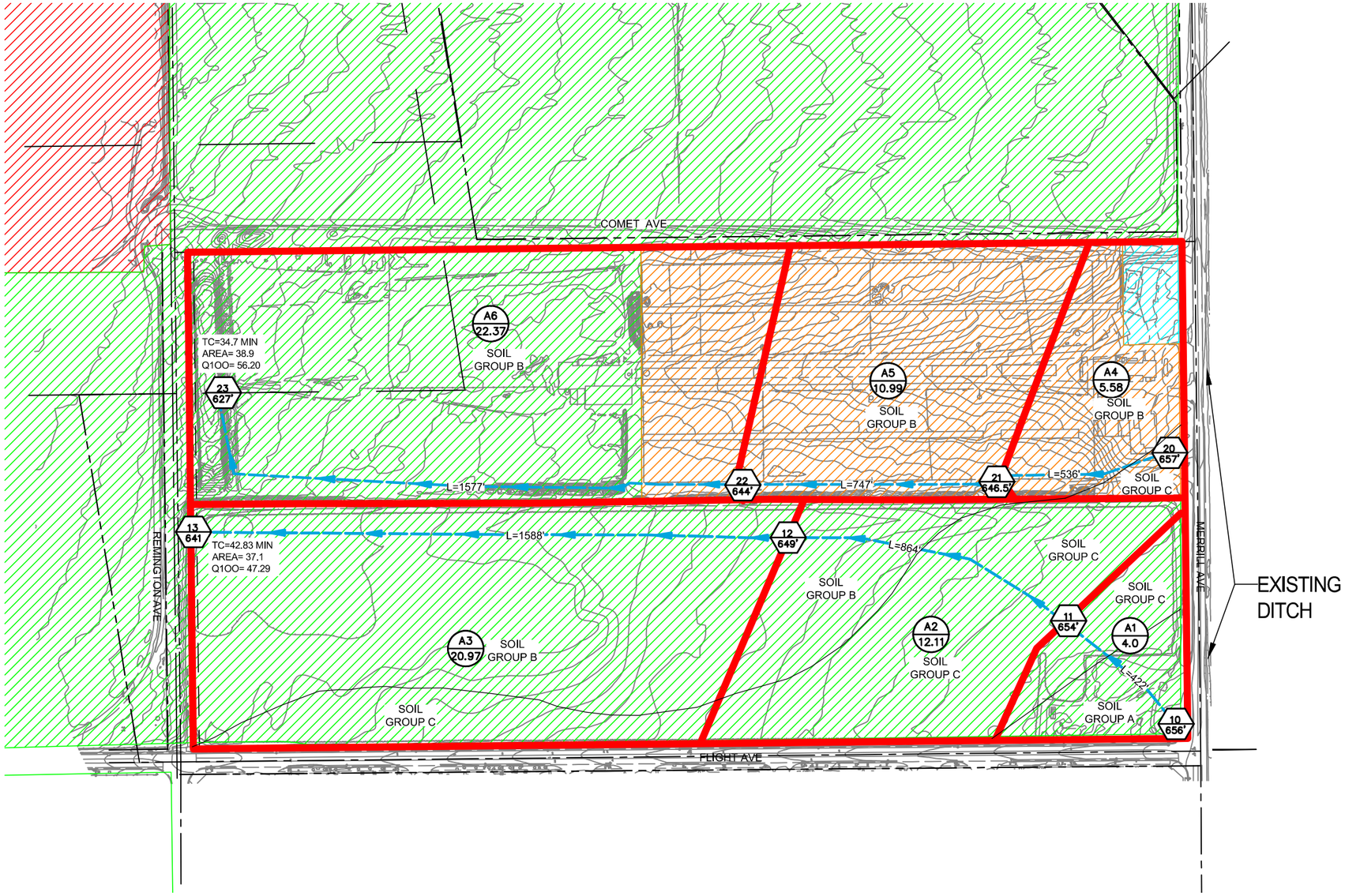
The peak runoff discharged from the western portion of the Project site during a 100-year storm is calculated to be 56.20 cubic feet per second (cfs) under existing conditions. The peak runoff discharged from the eastern portion of the Project site during a 100-year storm is calculated to be 47.29 cfs under existing conditions. The total, peak runoff discharged from the Project site under existing conditions during a 100-year storm is 100.81 cfs. (D&D, 2018a, p. 9)



Source(s): ESRI, SAWPA

Figure 4.9-1

SANTA ANA RIVER WATERSHED MAP



LEGEND

- NODE ID ELEVATION
- FLOWPATH
- EXISTING HYDROLOGY BOUNDARY
- EXISTING TOPO
- EXISTING CONTOUR

EXISTING LANDUSE 2012

- AIRPORT
- DAIRY & INTENSIVE LIVESTOCK
- IRRIGATED CROPLAND
- RURAL RES. LOW. DENS.
- SUBAREA ID
  ACRES

Source(s): D&D Engineering, Inc. (05-02-2018)

Figure 4.9-2

NOT TO SCALE

EXISTING CONDITIONS HYDROLOGY MAP

C. Flooding and Dam Inundation

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06071C9375H, dated August 28, 2008, the Project site is located within "Zone X (shaded)," which corresponds to areas with minimal flood hazard outside of the 500-year floodplain (also referred to as the 0.2% annual chance floodplain). No portions of the Project site are located a 100-year flood hazard area. The FEMA FIRM for the Project area is depicted on Figure 4.9-3, *FEMA Flood Insurance Map Panel No. 06071C9375H*.

According to the City of Chino General Plan, the Project site is not located within the inundation area for the Prado Dam; refer to Figure 4.9-4, *City of Chino 566 Foot Prado Dam Inundation Area*.

D. Water Quality

The Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act, CWA) requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards due to excessive concentrations of pollutants are placed on a list of impaired waters pursuant to Section 303(d) of the CWA. The Project site's receiving waters include the Cucamonga Channel. The Santa Ana watershed is included on the CWA's Section 303(d) list of impaired waters because of excessive concentrations of two (2) pollutants ("Pollutants of Concern"), including pathogens and metals (D&D, 2018b, p. 3-7).

E. Groundwater

The City of Chino is underlain by groundwater resources associated with the Chino Groundwater Basin. The City of Chino's Water Utility relies on groundwater resources from this groundwater basin for a portion of its total water supply. According to the Chino Basin Watermaster, groundwater elevations beneath the Project site occur at elevations at approximately 550 feet amsl, indicating that the groundwater table beneath the site occurs approximately 90 to 120 feet below the ground surface (CBWM, 2017, Exhibit 4-4)

The Project site contains private agricultural wells along the east side of the site; however, the wells appear to be inactive (Anacapa, 2018a, p. 8).

4.9.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws, related regulations, and plans related to hydrology and water quality.

A. Federal Plans, Policies, and Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11 North. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from digital orthophotography collected by the U.S. Department of Agriculture Farm Service Agency. This imagery was flown in 2005 and was produced with a 1-meter ground sample distance.

This map may reflect more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to confirm to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

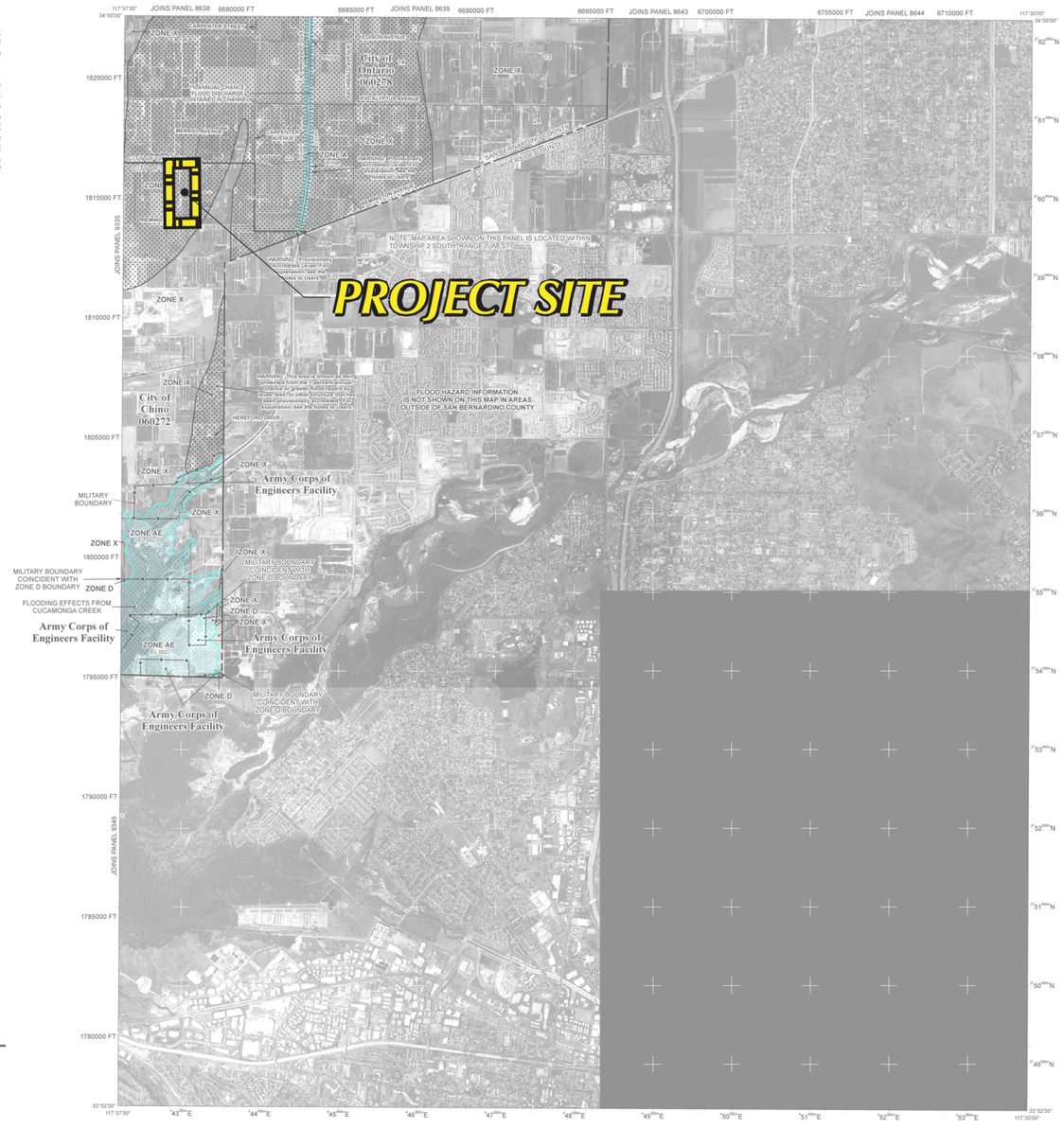
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

WARNING: This map contains levees, dikes, or other structures that have been provisionally accredited and mapped as providing protection from the 1-percent–annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by August 8, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.



NFIP — NATIONAL FLOOD INSURANCE PROGRAM

PANEL 9375H

FIRM

FLOOD INSURANCE RATE MAP

SAN BERNARDINO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 9375 OF 9400

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHINO, CITY OF	060272	9375	H
ONTARIO, CITY OF	060278	9375	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06071C9375H

MAP REVISED
AUGUST 28, 2008

Federal Emergency Management Agency

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAS)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 2476000mN — 1000-meter Universal Transverse Mercator grid values, zone 11N
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone V (FIPSZONE 0405), Lambert Conformal Conic projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- ●M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
March 18, 1996

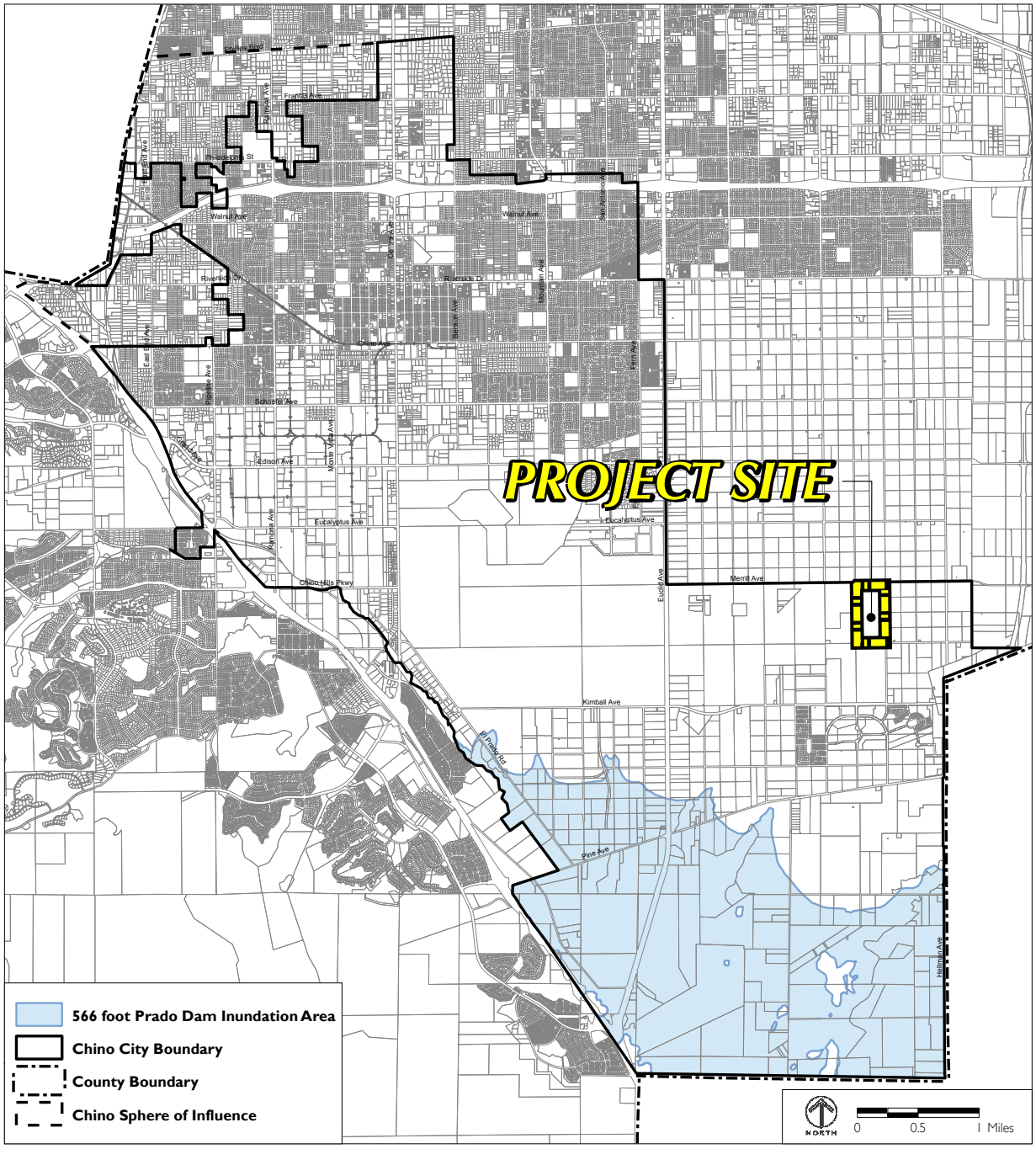
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
August 28, 2008 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, and to incorporate previously issued Letters of Map Revision.

Source(s): FEMA (08-28-2008)

Figure 4.9-3

NOT TO SCALE

FEMA FLOOD INSURANCE MAP PANEL NO. 06071C9375H



Source(s): City of Chino General Plan (07-2010)

Figure 4.9-4

NOT TO SCALE

CITY OF CHINO
566 FT. PRADO DAM INNUNDATION AREA

1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2017a)

B. State Plans, Policies, and Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 *et seq.*), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other

orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site and vicinity are located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region.

2. California Water Code

The California Water Code is the principle state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB); water supply and wastewater treatment agencies; and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water.

3. California Toxics Rule (CTR)

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the

Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016)

4. CDFG Code Section 1600 et seq. (Lake or Streambed Alteration Agreement Program)

Fish and Game Code § 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream, or lake. (CDFW, 2017c)

It should be noted that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. (CDFW, 2017c)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, 2017c)

5. Watershed Management Initiative (WMI)

The State and Regional Water Boards are currently focused on looking at entire watersheds when addressing water pollution. The Water Boards adopted the Watershed Management Initiative (WMI) to further their goals. The WMI establishes a broad framework overlying the numerous federal and state mandated priorities. As such, the WMI helps the Water Boards achieve water resource protection, enhancement and restoration while balancing economic and environmental impacts. (SWRCB, 2013) The integrated approach of the WMI involves three main ideas:

- Use water quality to identify and prioritize water resource problems within individual watersheds.
- Involve stakeholders to develop solutions.
- Better coordinate point source and nonpoint source regulatory efforts.
- Establish working relationships between staff from different programs.
- Better coordinate local, State, and federal activities and programs, especially those relating to regulations and funding, to assist local watershed groups. (SWRCB, 2013)

C. *Local Plans, Policies, and Regulations*

1. *City of Chino Master Plan of Drainage*

The Project site is located within the boundary of the Storm Drain Master Plan for Subarea 2 of the Chino Agricultural Preserve Area (hereafter "Storm Drain Master Plan"), which corresponds to the boundaries of The Preserve Specific Plan area. The Storm Drain Master Plan was prepared on behalf of the City of Chino to identify master-planned drainage and flood control facilities that are needed to safely convey the peak runoff from a 100-year storm through The Preserve Specific Plan area upon full buildout. The Project site spans the Storm Drain Master Plan's Drainage Areas D and J (the western portion of the site is part of Drainage Area J and the eastern portion of the site is part of Drainage Area D). According to the Storm Drain Master Plan, stormwater runoff flows from both Drainage Areas D and J are planned to be conveyed to a basin south of Kimball Avenue (hereafter "Kimball Avenue Basin"). The Storm Drain Master Plan provides for an underground storm drain pipe beneath Kimball Avenue (existing) to convey flows to the Kimball Avenue Basin from Drainage Area D; the Storm Drain Master Plan provides for an underground culvert beneath the Chino Airport runways (existing) and above-ground unpaved drainage course (existing) to convey flows to the Kimball Avenue from Drainage Area J. From the Kimball Avenue Basin, the Storm Drain Master Plan provides to runoff to be conveyed to the Prado Reservoir via a system of underground pipes, manmade drainage channels, and natural drainage courses. (D&D, 2018a, p. 4)

2. *City of Chino Municipal Code*

Chapter 13.25 (Storm Water Drainage System Regulations) of the City of Chino Municipal Code requires the City to participate as a "Co-permittee" under the NPDES permit program to accomplish the requirements of the CWA. Pursuant to this chapter, the City is required to participate in the improvement of water quality and comply with Federal requirements for the control of urban pollutants to stormwater runoff. (Chino, 2018)

In accordance with City of Chino Municipal Code Section 19.07.140, development proposals shall ensure that on-site areas are protected, at a minimum, from flooding during peak storm events (i.e., 100-year storm) and that downstream areas are not exposed to increased flooding risks during peak storm events. Development proposals are required to prepare hydrologic and hydraulic calculations and studies to demonstrate that proposed grading and development will not result in flooding risks on-site or downstream. The hydraulic calculations and studies shall be subject to the review and approval of the City's engineer. In addition, City of Chino Municipal Code Section 19.07.140 requires all grading and improvements be designed to prevent undue soil erosion or sedimentation. (Chino, 2018)

Lastly, the City of Chino Municipal Code (§19.09.030) requires development projects to incorporate an erosion and dust control plan into proposed clearing/grubbing, stockpile, grading, or demolition activities to minimize water- and windborne erosion. Specific dust control measures – and a schedule for implementation – are required to be listed on the grading/construction plan as well as the name and contact information of the person responsible for carrying out the dust control measures. The erosion and dust control plan shall be approved by City of Chino staff prior to the issuance of the applicable construction permit. (Chino, 2018)

4.9.3 Basis for Determining Significance

The proposed Project would result in a significant impact to hydrology and water quality if the Project or any Project-related component would:

a. *Violate any water quality standards or waste discharge requirements;*

b. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);*

c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;*

d. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of surface runoff in a manner which would result in flooding on- or off-site;*

e. *Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;*

f. *Otherwise substantially degrade water quality;*

g. *Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;*

h. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows;*

i. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or*

j. *Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects related to hydrology and water quality that could result from development projects. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold.

4.9.4 Impact Analysis

Threshold a: Would the Project violate any water quality standards or waste discharge requirements?

A. Construction-Related Water Quality Impacts

Development of the Project would involve demolition, clearing, grading, paving, utility installation, building construction, and landscaping activities, which would expose or generate potential water quality pollutants such as silt, debris, organic waste, chemicals, paints, and other solvents with the potential to adversely affect

water quality. As such, short-term water quality impacts have the potential to occur during Project construction in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and Chino Municipal Code Chapter 13.25, the Project would be required to obtain a NPDES Municipal Stormwater Permit for construction activities. The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least one (1) acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Program. Compliance with the NPDES permit and the Santa Ana River Basin Water Quality Control Program involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that would be required to be implemented during construction activities to ensure that potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Pursuant to Chino Municipal Code §19.09.030, the Project also would be required to implement an erosion and dust control plan to minimize water- and windborne erosion. Mandatory compliance with the SWPPP and the erosion and dust control plan would ensure that the Project's implementation does not violate any water quality standards or waste discharge requirements during construction activities. In addition, any water quality pollutants of concern associated with the property's agricultural use would be omitted or reduced as the result of developing the site as proposed. Therefore, water quality impacts associated with construction activities would be less than significant and no mitigation measures would be required.

B. Post-Development Water Quality Impacts

Stormwater pollutants that may be produced by the Project include pathogens, nutrients, sediments, metals, oil and grease, trash/debris, pesticides/herbicides, and organic compounds (D&D, 2018b, p. 2-3).

To meet the requirements of the City's NPDES permit and in accordance with Chino Municipal Code Section 13.25.500, the Project would be required to prepare and implement a Water Quality Management Plan (WQMP), which is a site-specific post-construction water quality management program designed to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters, under long-term conditions via BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. The Project's Preliminary WQMP, prepared by D&D, is included as *Technical Appendix I2* to this EIR. As identified in *Technical Appendix I2*, the Project is designed to include on-site structural source control BMPs consisting of a water quality basin and bioswales, and operational source control BMPs would be implemented, including but not limited to: the installation of water-efficient landscape irrigation systems, storm drain system stenciling and signage, and implementation of a trash and waste storage areas – to minimize, prevent, and/or otherwise appropriately treat stormwater runoff flows before they are discharged into the City's storm drain system. (D&D, 2018b, pp. 4-2 through 4-5) Compliance with the Preliminary WQMP would be required by the City as a condition of approval for the Project. Long-term maintenance of on-site water quality features, as described in the Preliminary WQMP, also would be required

by the City as a condition of approval to ensure the long-term effectiveness of all on-site water quality features and maximize pest management (particularly mosquito control).

In addition to mandatory implementation of a WQMP, the NDPES program also requires certain land uses, including the parcel delivery facility use as proposed by the Project (which is considered an "industrial activity" for purposes of of NPEDS applicability), to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted. On April 1, 2014, the California State Water Resources Control Board adopted an updated NPDES permit for storm water discharge associated with industrial activities (referred to as the "Industrial General Permit"). The updated Industrial General Permit, which is more stringent than the former Industrial General Permit, became effective on July 1, 2015. Under the currently effective NPDES Industrial General Permit, the Project would be required to prepare a SWPPP for operational activities and implement a long-term water quality sampling and monitoring program or receive an exemption. Because the permit is dependent upon a detailed accounting of all operational activities and procedures, and the precise operational details of the parcel delivery facility are not known at this time, details of the operational SWPPP (including BMPs) or potential exemption to the SWPPP operational activities requirement cannot be determined at this time. However, based on the requirements of the NPDES Industrial General Permit, it is reasonably assured that the Project's mandatory compliance with all applicable regulations would further reduce potential water quality impacts during long-term operation.

Based on the foregoing analysis, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during long-term operation. Impacts would be less than significant.

Threshold b:	***Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?***

The Project would be served with potable water from the City of Chino, and the Project Applicant does not propose the use of any wells or other groundwater extraction activities. Therefore, the Project would not directly draw water from the groundwater table. In addition, the Project's construction process would entail the required abandonment of all active and inactive water wells located on the Project site that were previously used by the on-site agricultural operations in accordance with applicable regulatory requirements for private water well deconstruction. Accordingly, implementation of the proposed Project has no potential to substantially deplete or decrease groundwater supplies and the Project's impact to groundwater supplies would be less than significant.

Development of the Project would increase impervious surface coverage on the Project site, which would, in turn, reduce the amount of water percolating down into the underground aquifer that underlies the Project site and a majority of the City and surrounding areas. However, a majority of the groundwater recharge in the Chino groundwater basin occurs in the northern portion of the Basin, north of the City of Chino, within

percolation basins located throughout San Bernardino County (Chino, 2010b, p. 4.8-13). The Project site is located in the southern portion of the Chino groundwater basin and would not physically impact any of the major groundwater recharge facilities in the Basin and, therefore, would not result in substantial, adverse effects to local groundwater levels. Additionally, the Project would entail the installation of a water quality basin, a flood control basin, drainage swales, and permeable landscape areas on the Project site to maximize the direct percolation of on-site storm water runoff into the Chino groundwater basin. Accordingly, buildout of the Project with these design features would not interfere substantially with groundwater recharge or impede sustainable groundwater management of the Chino groundwater basin. The Chino groundwater basin is an adjudicated basin (refer to *Technical Appendix L* for more information), and adjudicated basins are exempt from the 2014 Sustainable Groundwater Management Act (SGMA) because such basins already operate under a court-ordered water management plan. As such, the Chino Basin is expressly included in the SGMA's list of exempt basins (CBWM, 2014).

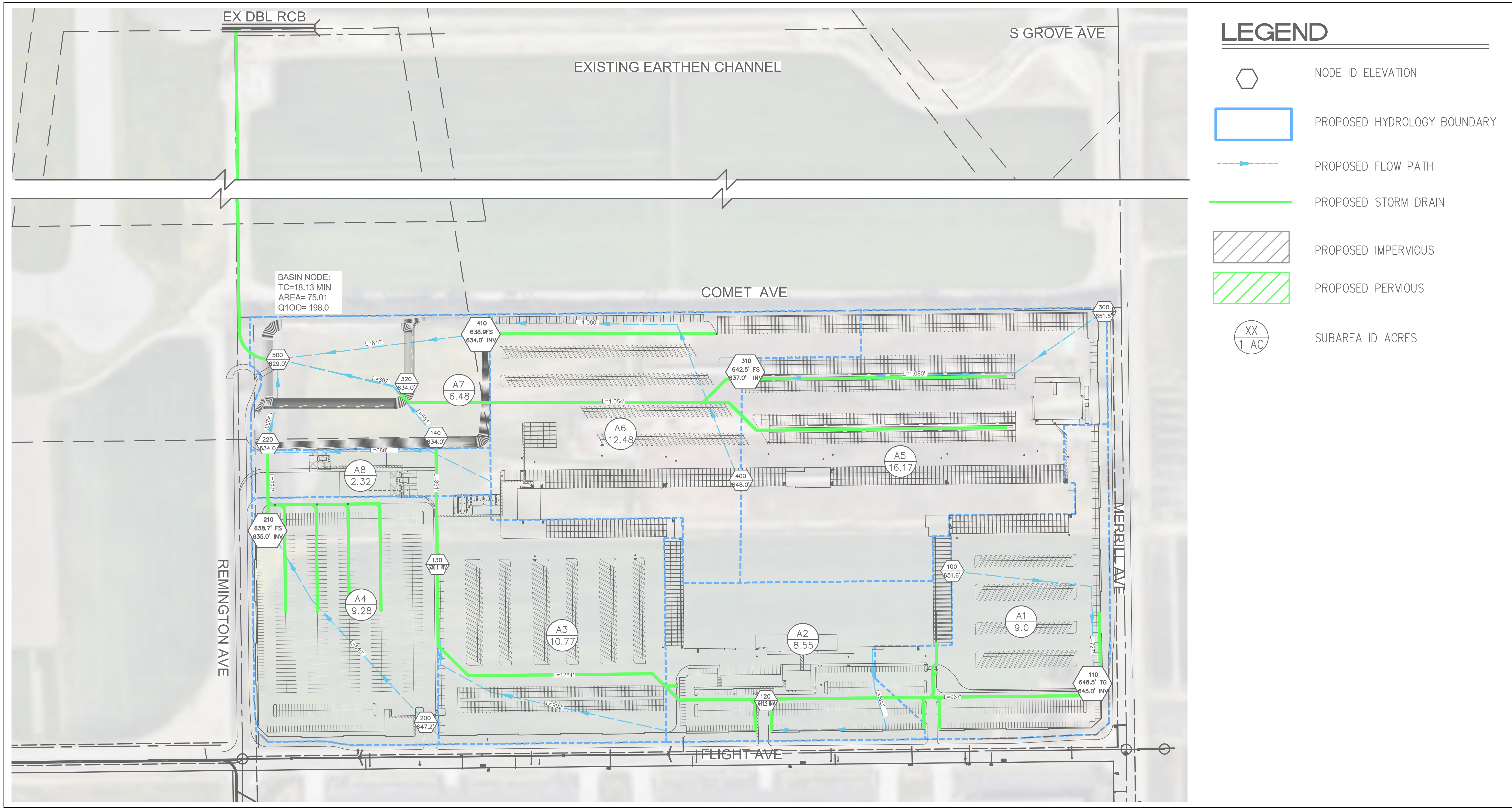
For the reasons stated above, the Project would not substantially decrease or deplete groundwater supplies, interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume, lower the local groundwater table level, cause an impartment to sustainable groundwater management, or conflict with or obstruct the implementation of a sustainable groundwater management plan. Impacts would be less than significant.

Threshold c: ***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?***

The proposed Project would alter existing ground contours of the Project site and install impervious surfaces, which would result in changes to the site's existing, internal drainage patterns. Figure 4.9-5, *Proposed Post-Development Hydrology Map*, illustrates the post-development drainage conditions on the Project site.

The Project would include an integrated, on-site system of underground storm drain pipes, catch basins, a water quality basin, and a flood control basin to capture on-site stormwater runoff flows, convey the runoff across the site, and treat the runoff with BMPs to minimize the amount of water-borne pollutants carried from the Project site (as described in detail in EIR Section 3.0, *Project Description*). Upon development of the Project, all stormwater runoff discharged from the Project site would flow directly into an underground storm drain pipe at the southwestern corner of the Project site that would carry flows west, to an existing culvert that carries flows beneath the Chino Airport and to the Kimball Avenue Basin (and, ultimately, the Prado Reservoir).

Although the Project would alter the subject property's internal drainage patterns, such changes would not result in substantial erosion or siltation on- or off-site. Pursuant to Chino Municipal Code §19.09.030, the Project would be required to implement an erosion and dust control plan to minimize water- and windborne erosion during construction activities. Furthermore, as summarized in the Project's WQMP (refer to *Technical Appendix I2*), the Project BMPs are designed to be effective at removing sediment from stormwater runoff during long-term operation (D&D, 2018b, Form 4.1-1). Compliance with the WQMP would be required by the City as a condition of Project approval (pursuant to Municipal Code Section 13.25.500) and long-term



Source(s): D&D Engineering, Inc. (10-17-2018)

NOT TO SCALE

Figure 4.9-5

PROPOSED POST-DEVELOPMENT HYDROLOGY MAP

maintenance of on-site water quality features would be required to ensure their long-term effectiveness. The BMPs included in the WQMP will also address hydrologic conditions of concern through structural and programmatic requirements designed to both reduce and treat erosion and sedimentation concerns as they relate to potential runoff from the Project site. Therefore, storm water runoff flows leaving the Project site would not carry substantial amounts of sediment. Because the Project would retain the site's general drainage pattern and would be required to incorporate design features to minimize erosion and sediment within surface water runoff, the Project would not result in substantial erosion or siltation on- site or off-site. Impacts would be less than significant.

Threshold d: ***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or surface runoff in a manner which would result in flooding on- or off site?***

As described above under the analysis for Threshold "c," proposed grading and earthwork activities and the addition of impervious surfaces on the Project site would alter the site's existing interior drainage characteristics but would not substantially alter the drainage pattern of the local area because under both the pre- and post-development conditions all surface water runoff that travels through the Project site would ultimately discharge into the Kimball Avenue Basin (and, after that, into the Prado Reservoir). Under Project conditions, all stormwater runoff from the Project site would flow through Storm Drain Master Plan Line J, instead of being divided between Lines D and J as planned by the Storm Drain Master Plan; however, because both Lines D and J confluence to the Kimball Avenue Basin, and from there, discharge into the Prado Reservoir, the Project would, essentially, be consistent with the Storm Drain Master Plan and would not substantially change the Storm Drain Master Plan's existing or planned flow patterns.

Before Project site's developed condition runoff flows are discharged from the Project site into Line J, runoff would be captured in a detention basin located in the southwest corner of the Project site. The detention basin would control the release of stormwater runoff from the Project site during peak storm events. Total peak flows leaving the Project site would be 54.6 cubic feet per second (cfs), which is less than the 56.2 cfs from the Project site that is tributary to Line J under existing conditions (and less than the total 100.81 cfs discharged from the Project site under existing conditions). Based on calculations performed by D&D, the Project site's developed condition stormwater flows would not negatively affect downstream Storm Drain Master Plan facilities (D&D, 2018a, pp. 4-5, 10-11). Based on the foregoing information, development of the Project site as proposed would not substantially alter the existing drainage pattern of the subject property or substantially increase the rate or amount of surface water runoff from the site in a manner that would result in flooding on- or off-site. Accordingly, a less-than-significant impact would occur.

Threshold e: ***Would the Project create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

As discussed above under Threshold "d," the Project's proposed storm drain improvements in conjunction with the City's existing Storm Drain Master Plan facilities would provide sufficient capacity to capture and convey peak storm water runoff generated by the Project. Accordingly, the Project would not create or

contribute runoff that would exceed the capacity of any existing or planned stormwater drainage system, and impacts would be less than significant.

As discussed under the analysis of Threshold "a," the Project would be required to comply with a SWPPP and the Project's Preliminary WQMP (*Technical Appendix I2*), which are required to identify BMPs to be incorporated into the Project to ensure that near-term construction activities and long-term post-development activities of the proposed Project would not result in substantial amounts of polluted runoff. Therefore, with mandatory compliance with the Project's SWPPP and WQMP, the Project would not create or contribute substantial additional sources of polluted runoff, and impacts would be less than significant.

Threshold f: Would the Project otherwise substantially degrade water quality?

There are no conditions associated with construction or operation of the Project that could result in the substantial degradation of water quality beyond what is described above in the responses to Thresholds "a," "c," and/or "e." Accordingly, no additional impacts would occur and mitigation is not required.

Threshold g: Would the Project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Threshold h: Would the Project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The Project does not include housing. In addition, according to the FEMA Flood Insurance Rate Map (FIRM) No. 06071C9375H, the Project site is not located within a 100-year flood hazard area (FEMA, 2008). Accordingly, the Project would have no potential to place housing, or other structures, within a 100-year floodplain or impede or redirect flood flows within a 100-year floodplain. No impact would occur.

Threshold i: Would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

As shown on Figure 4.9-4, the Project site is not located within the inundation area of the Prado Dam. The Project site is located approximately 1.2 miles west of a levee, the Cucamonga Creek Channel; however, according to FEMA FIRM No. 06071C9375H, the Project site is not located within an area subject to substantial flood hazards in the event of failure of the Channel. Accordingly, and also based on the information provided under the responses to Thresholds "d," "g," and "h," the Project would not expose people or structures to a significant risk of loss, injury or death involving flooding. No impact would occur.

Threshold j: Would the Project cause inundation by seiche, tsunami, or mudflow?

The Pacific Ocean is located over 30 miles southwest of the Project site; consequently, there is no potential for the Project site to be impacted by a tsunami. The Project site is not located near any steep hillsides and there are no steep hillsides present on the subject property; therefore, there is no potential for the site to be adversely affected by mudflow. The site also is not subject to flooding hazards associated with a seiche because the

nearest large body of surface water (Prado Dam), is located too far from the Project site to subject the Project site to seiche-induced inundation associated with the Prado Dam. Accordingly, the Project site has no potential to be inundated with water from such events that would then result in a risk of release of water pollutants from the site. Furthermore, implementation of the Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. No impact would occur.

4.9.5 Cumulative Impact Analysis

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project site and projects located in the Santa Ana River Basin and Chino groundwater basin. The analysis of potential cumulative impacts to hydrology and water quality is divided into six general topics of discussion by combining the Thresholds of Significance (listed above in Subsection 4.9.3) into groupings of like topics, as follows: 1) water quality (Thresholds "a" and "f"); 2) groundwater supply and recharge (Threshold "b" and "c") erosion and siltation (Threshold "c" and "d") flood hazards (Thresholds "d," "g," "h," "i," and "e") stormwater drainage system capacity (Threshold "e" and "f") other hazards (Threshold "j").

A. Water Quality

Construction of the Project and the construction of other projects in the cumulative study area would have the potential to result in a cumulative water quality impact, including erosion and sedimentation to the Santa Ana River watershed. Pursuant to the requirements of the State Water Resources Control Board and the Santa Ana RWQCB, all construction projects that disturb one (1) or more acres of land area are required to obtain a NPDES permit and obtain coverage for construction activities. In order to obtain coverage, an effective site-specific SWPPP is required to be developed and implemented for all development projects. The SWPPP must identify potential on-site pollutants and identify and implement an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. In addition, the Project and all cumulative developments in the Santa Ana River Basin would be required to comply with the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Program. With compliance with these mandatory regulatory requirements, the Project's contribution to water quality impairments during construction would not be cumulatively-considerable and mitigation is not required.

As discussed in detail under the analysis of Threshold "a," a WQMP would be required for all development on the Project site, including areas covered by pervious and impervious surfaces. Compliance with the applicable WQMP would be required by the City of Chino as a condition of approval for future development activities pursuant to Chino Municipal Code Section 13.25.500. Other developments within the watershed would similarly be required by law to prepare site-specific WQMPs and to incorporate BMPs into site design as necessary to ensure that runoff does not substantially contribute to existing water quality violations. Accordingly, under long-term conditions, the Project would not contribute to cumulatively-considerable water quality effects and no mitigation would be required.

B. Groundwater Supply and Recharge

Although the proposed Project would increase the impervious surfaces on the site, the Project incorporates permeable landscape areas and other design features that would allow some surface runoff to infiltrate into the groundwater basin. Also, as previously noted, the City is underlain by groundwater resources associated with the Chino groundwater basin; however, most of the groundwater recharge in the Chino groundwater basin occurs in the northern portion of the Basin, north of Chino. The Project site is located in the southern portion of the groundwater basin and would not adversely affect any designated groundwater recharge basin. Furthermore, no groundwater wells would be installed on the Project site as part of the Project's implementation and all existing private-use agricultural water wells on the Project site would be deconstructed and removed in accordance to local and State regulations. For these reasons, the proposed Project would not result in cumulatively-considerable impacts associated with the depletion of groundwater supplies or substantial interference with sustainable groundwater recharge.

C. Erosion and Siltation

Construction of development projects within the Santa Ana River Basin would alter existing ground contours throughout the basin, which would result in changes to the basin's existing drainage patterns. However, developments throughout the basin would be required to comply with federal, State, and local regulations to minimize stormwater pollution during construction (including erosion and siltation). Accordingly, grading plans would be required to be designed to preclude undue soil erosion and developments would be required to prepare and implement a SWPPP and WQMP to ensure that substantial soil erosion and/or sedimentation would not occur during temporary construction conditions or long-term conditions. Because the Project, and all other developments throughout the Santa Ana River Basin, would need to comply with federal, State, and local regulations, implementation of the Project would not result in a cumulatively-considerable impact to erosion and/or siltation.

D. Flood Hazards

Construction of the Project and other development projects within the Santa Ana River Basin would be required to comply with federal, State, and local regulations and applicable regional and local master drainage plans in order to mitigate flood hazards both on- and off-site. Compliance with federal, State, and local regulations and drainage plans would require on-site areas to be protected from flooding during peak storm events (i.e., 100-year storm) and also would require that proposed development projects would not expose downstream properties to increased flooding risks during peak storm events. In addition, future development proposals within the Santa Ana River Basin would be required to prepare hydrologic and hydraulic calculations, subject to review and approval by the responsible City/County Engineer, to demonstrate that substantial on- and/or off-site flood hazards would not occur. As discussed under the response to Threshold "e," the Project is designed to ensure that peak flood volumes and flows are substantially similar to those that occur under existing conditions and the Project would not conflict with the Master Drainage Plan. Because the Project and all other developments throughout the Santa Ana River Basin, would need to comply with federal, State, and local regulations, implementation of the Project would not result in a cumulatively-considerable impact to flood hazards.

As discussed under the responses to Thresholds "g" and "h," the Project Applicant does not propose housing nor is the Project site located within a special flood hazard area subject to inundation by the 1-percent annual flood (i.e., 100-year floodplain). Accordingly, development on the Project site would have no potential to place housing, or other structures, within a 100-year floodplain or impede or redirect flood flows within a 100-year floodplain and no cumulatively-considerable impact would occur.

As discussed under the analysis of Threshold "i," the Project site is not subject to flood hazards associated with failure of a levee or dam. As such, Project development has no potential to contribute to cumulative impacts associated with such failures.

E. Stormwater Drainage System Capacity

The Project's proposed storm drain improvements would have sufficient capacity to accommodate and convey stormwater runoff flows generated by the Project and would convey the expected future stormwater runoff flows associated with buildout of the Storm Drain Master Plan area. All development projects in the Storm Drain Master Plan area are required to demonstrate that storm drain capacity is available to service their anticipated flows. As such, cumulative impacts would be less than significant and the proposed Project's contribution of flows would thus be less than cumulatively-considerable.

F. Other Hazards

The Project site is not subject to hazards associated with seiches, tsunamis, or mudflows. There are no components of the proposed Project that would increase the potential for seiches, tsunamis, or mudflows either on site or off site. Accordingly, development of the Project has no potential to make a cumulatively-considerable contribution to water quality degradation as the result of water inundation.

4.9.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements on a direct or cumulatively considerable basis. Adherence to a SWPPP and WQMP is required as part of the Project's implementation to address construction- and operational-related water quality.

Threshold b: Less-than-Significant Impact. The Project would not physically impact any of the major groundwater recharge facilities in the Chino groundwater basin. The Project would not substantially decrease or deplete groundwater supplies, interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume, lower the local groundwater table level, cause an impartment to sustainable groundwater management, or conflict with or obstruct the implementation of a sustainable groundwater management plan. Impacts would be less than significant.

Threshold c: Less-than-Significant Impact. The Project would retain the site's general drainage pattern and would be required to comply with regulatory requirements and incorporate design features as part of Project implementation to minimize erosion and sediment within surface water runoff.

Threshold d: Less-than-Significant Impact. The Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of polluted runoff.

Threshold e: Less-than-Significant Impact. The Project's on-site stormwater drainage system and the off-site Storm Drain Master Plan (MDP) lines that the Project's storm water would flow into have sufficient available capacity to accommodate anticipated surface runoff flows on the Project site. Additionally, the Project is required to be designed in accordance with the City's MDP, and comply with a SWPPP and a site-specific WQMP.

Threshold f: No Impact. There are no other components of the Project that would substantially degrade water quality.

Thresholds g and h: No Impact. The Project would not construct structures within a 100-year flood hazard area, nor is the Project site located within a 100-year flood hazard area.

Threshold i: No Impact. The Project site would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Threshold j: No Impact. The Project site is not subject to hazards associated with seiches, tsunamis, or mudflow. Therefore, the Project site has no potential to be inundated with water from such events that would result in a risk of release of water pollutants from the site.

4.9.7 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.10 LAND USE AND PLANNING

This Subsection discusses the Project's consistency with applicable land use and planning policies adopted by the City of Chino and other governing agencies for the purpose of reducing adverse effects on the environment. Information used to support the analysis in this Subsection was obtained primarily from the City of Chino General Plan (Chino, 2010a), City of Chino Zoning Ordinance (Chino, 2017b), The Preserve Specific Plan (Chino, 2016), Southern California Association of Governments (SCAG) *Regional Transportation Plan/Sustainable Communities Strategy* (*RTP/SCS*) (SCAG, 2016b), and the City of Chino Climate Action Plan (CAP) (Chino, 2013). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.10.1 EXISTING CONDITIONS

A. Existing Land Use and Development

Refer to Section 2.0, *Environmental Setting*, for a full description of existing uses on-site and in the surrounding area. In summary, the Project site is used for dairy and agricultural (field crops) operations under existing conditions. The western portion of the site contains two residences associated with the dairy, agricultural support buildings/structures, and pasture (that house approximately 700 head of cattle)[1]. The eastern portion of the Project site is occupied by field crops.

The Project site is located in an area of Chino known as "The Preserve," which is undergoing a conversion from historic agricultural land uses to urbanized industrial land uses (primarily north of Kimball Avenue) and residential land uses (primarily south of Kimball Avenue). Three (3) large industrial buildings are located immediately east of the Project site (east of Flight Avenue) and eight (8) large industrial buildings, collectively containing up to 3,827,000 s.f. of building space, are nearing the completion of construction to the east of the Project site. Industrial and business park land uses also are under construction to the southeast of the Project site (east of Flight Avenue and south of Remington Avenue). A large agricultural field is located to the west of the Project site and agricultural land uses within the City of Ontario are located north of the Project site – although the area to the north is designated by the Ontario General Plan for industrial/business park land uses and is expected to be developed with employment-generating land uses in the future. The Chino Airport is located south and southwest of the Project site.

4.10.2 APPLICABLE ENVIRONMENTAL PLANS, POLICIES, AND REGULATIONS

The following is a brief description of the federal, state, and local environmental laws and related regulations related to land use and planning.

A. State Plans, Policies, and Regulations

1. California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, §§ 65000 - 66210. Under State of California planning

[1] As noted in EIR Section 2.0, *Environmental Setting*, a dairy farm was operational on the western portion of the Project site at the time the NOP for this EIR was published on September 23, 2017, but has since ceased operation. The analysis presented in this EIR section (and elsewhere throughout the EIR) assumes the dairy on the Project site is active because the dairy was operational at the time the site's "existing conditions" were established upon publication of the NOP.

law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

2. Office of Planning and Research (OPR) General Plan Guidelines

Each city and county in California must prepare a comprehensive, long term general plan to guide its future. To assist local governments in meeting this responsibility, the Governor's Office of Planning and Research (OPR) is required to adopt and periodically revise guidelines for the preparation and content of local general plans pursuant to Government Code § 65040.2. The General Plan Guidelines is advisory, not mandatory. Nevertheless, it is the State's only official document explaining California's legal requirements for general plans. Planners, decision-making bodies, and the public depend upon the General Plan Guidelines for help when preparing local general plans. The courts have periodically referred to the General Plan Guidelines for assistance in determining compliance with planning law. For this reason, the General Plan Guidelines closely adheres to statute and case law. It also relies upon commonly accepted principles of contemporary planning practice. (OPR, 2017b)

B. Local Plans, Policies, and Regulations

1. City of Chino General Plan

The City of Chino General Plan (July 2010) is a policy document that reflects the City's vision for the future of Chino. The General Plan is organized into twelve separate elements, which contain a series of policies to guide the City's vision for future development. Each of the elements from the City of Chino General Plan are summarized below.

❑ A Healthy City

The Healthy City Element represents the City's focus on improving public health and awareness in Chino. This element contains one overarching goal regarding public health in the City, which is to "Foster Chino residents' health" (Goal HC-1). To achieve this goal, two primary objectives and corresponding actions and/or policies are identified, including the promotion of community health and healthy eating habits. Additionally, the Healthy City Element emphasizes the General Plan's focus on public health by identifying the health-related goals, objectives, policies, and actions in each element of the General Plan. (Chino, 2010a, Ch. 3)

❑ Land Use Element

The Land Use Element functions as a land use guide for future development in the City. It identifies the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, recreation, floodplains, and public facilities. These designations are reflected on the General Plan Land Use Map, which are applied on a parcel-by-parcel basis throughout the City. The Land Use Element also provides standards for residential density and non-residential intensity. It governs how land is to be used; therefore,

many of the issues and policies contained in other elements of the General Plan are linked in some degree to this element.

The City's General Plan designates the Project site for "Public" land uses. The "Public" land use designation is intended for major public uses or institutions, including the Civic Center, hospital, post offices, fire stations, and the airport (Chino, 2010a, LU-16).

❑ Community Character

The Community Character Element guides the design of future development and on-going improvements throughout the City. This element identifies goals, objectives, policies, and actions that will preserve the City's small-town character while improving community design and public health. According to the General Plan, the City can be divided into several distinct areas that each represent a different community character, including Chino's Civic Center, downtown, central neighborhoods, 20th century suburban neighborhoods, east Chino, rural neighborhoods, The Preserve and College Park, retail corridors, shopping centers, industrial areas, agricultural areas, open space areas, and institutions. According to Figure CC-1 of the General Plan, the Project site is located within the City's "Agricultural Areas," which are mainly dairy operations located in the southern part of the City that primarily consist of feeding areas and barns. (Chino, 2010a, Ch. 5)

❑ Housing Element

The Housing Element identifies and establishes the City's policies with respect to meeting the needs of existing and future residents of the City. Specific components of the Housing Element, which also are requirements of state law, include the following: an assessment of housing needs and inventory; an analysis and program for preserving assisted housing developments; a statement of community goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing; and a program which sets forth a five-year schedule of actions that the City is undertaking, or intends to undertake to implement the policies set forth in the Housing Element. (Chino, 2010a, Ch. 6)

❑ Transportation Element

The purpose of the Transportation Element is to develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system. It is also intended to provide for safe and adequate non-vehicular transportation, including pedestrian, bicycle, equestrian, public transportation systems, and freight movement. The Transportation Element also establishes level of service (LOS) standards for Transportation Element roadways throughout the City.

The long-term Transportation Element roadway network is illustrated on Transportation Element Figure TRA-6. Along the Project site's northern frontage, Merrill Avenue is designated as a "Secondary Arterial," which is an undivided, four-lane road with an 88-foot-wide public right-of-way. Along the Project site's eastern boundary Flight Avenue is designated by the Transportation Element as a "Collector," a two-lane undivided road with a right-of-way width that can vary between 60 and 88 feet. Both Merrill Avenue and Flight Avenue are identified as a City of Chino truck routes on Transportation Element Figure TRA-5. (Chino, 2010a, Ch. 7)

The Transportation Element also identifies the location of existing and planned bicycle facilities and trails throughout the City. Pursuant to Transportation Element Figure TRA-2, the segment of Flight Avenue south of Remington Avenue is designated as "Class II or III On-Street Bicycle Facility." A Class II bicycle facility comprises a bicycle lane on a road identified by pavement markings and/or signs, whereas a Class III route signifies a bicycle route that shares the roadway with motor vehicles. Pursuant to Transportation Element Figure TRA-3, there are no existing or planned equestrian trails are located within the vicinity of the Project site (Chino, 2010a, Figure TRA-3).

❑ Economic Development Element

The Economic Development Element provides goals, objectives, policies, and actions to maintain and strengthen Chino's economy while preserving the City's small-town character. This element addresses the City's economic conditions, jobs/housing balance, and fiscal conditions, and implementation measures. (Chino, 2010a, Ch. 8)

❑ Open Space and Conservation Element

The Open Space and Conservation Element is intended to achieve the preservation of open space and agriculture, and conservation of natural resources. Issues addressed by the Conservation and Open Space Element include biological resources and associated habitats, agricultural preservation, mineral resources, renewable resources and energy conservation, air quality, global climate change, and historic and cultural resources. (Chino, 2010a, Ch. 9)

❑ Parks and Recreation Element

The Parks and Recreation Element includes specific policies related to park design standards, park dedication, and recreational facilities (Chino, 2010a, Ch. 10)

❑ Public Facilities and Services Element

The Public Facilities and Services Element provides guidance and policies to ensure new development in the City will be supported by adequate public facilities and services. Public facilities and services addressed in this element include fire, police, schools, health care, childcare, public buildings, water service (availability and conservation), sewers, stormwater, and solid waste and recycling. (Chino, 2010a, Ch. 11)

❑ Air Quality Element

The purpose of the Air Quality Element is to identify the regulatory framework related to air quality and provide policy guidance to reduce air pollutants and improve public health in the City (Chino, 2010a, Ch. 12)

❑ Safety Element

The goal of the Safety Element is to assist the City in achieving acceptable levels of protection from natural and man-made hazards to life, health, and property, and to ensure that emergency services in the City are adequate to meet the City's needs during both minor emergencies and major catastrophic situations. (Chino, 2010a, Ch. 13)

❑ **Noise Element**

The purpose of the Noise Element is to identify noise generation in the City and provide policies to ensure that development does not expose people to unacceptable noise levels. According to the General Plan, noise generation sources include freeway and arterial traffic, Chino Airport, Ontario International Airport, Union Pacific Rail Line, and commercial and industrial properties. (Chino, 2010a, Ch. 14)

2. The Preserve Specific Plan

The Project site is located within the geographic boundaries of The Preserve Specific Plan. The Preserve Specific Plan establishes specific zoning designations and development standards for private development projects located within its geographic boundaries. As previously shown on Figure 2-3, *The Preserve Specific Plan Land Use Map*, the Specific Plan applies the "Public Facilities (PF)" designation to the Project site. The PF land use designation is intended to provide for local- and regional-serving public and quasi-public facilities and services, such as museums, libraries, places of worship, public safety facilities, utility stations, and transportation facilities (Chino, 2016a, Section V, p. 82).

The Preserve Specific Plan also applies the Chino Airport Overlay (CAO) zoning overlay to the Project site (Chino, 2016a, Figure 9A). The CAO is intended to ensure the viability of airport operations at the Chino Airport, and to protect the health, safety, and welfare of the residents of Chino. Any proposed development within the CAO must comply with City Zoning Ordinance Section 20.09.050, Airport Overlay District, (Chino, 2016a, Section V, pp. 103-104).

3. City of Chino Zoning Ordinance

Development of the Project site is regulated by the development regulations and design standards contained in The Preserve Specific Plan. The development regulations and design standards contained within The Preserve Specific Plan supersede the zoning standards contained in the City's Zoning Ordinance.

4. City of Chino Climate Action Plan

The Chino Climate Action Plan (CAP) was adopted on November 19, 2013 and went into full effect on January 2, 2014. As part of the CAP, the City of Chino selected a goal to reduce the City's GHG emissions to a level 15-percent below its 2008 GHG emissions levels by 2020, which the City determined would achieve the GHG emissions reduction mandates of AB 32 and also would be consistent with the recommendations contained in the CARB AB 32 Scoping Plan. The City concluded that City-wide GHG emissions consistent with the CAP would result in a less-than-significant environmental impact (Chino, 2013, pp. 5, 13). A detailed description of the CAP and an analysis of the Project's consistency with the CAP was previously provided in EIR Subsection 4.7, *Greenhouse Gas Emissions*.

5. SCAG Regional Transportation Plan and Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning

Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region.

As a MPO and public agency, SCAG develops transportation and housing strategies that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. The *RTP/SCS* also provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (ARB); these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. (SCAG, 2016b)

6. SCAQMD Air Quality Management Plan

An AQMP is a plan for the regional improvement of air quality. The South Coast Air Quality Management District's (SCAQMD's) *2016 AQMP* is the most recent AQMP for the South Coast Air Basin and was approved by the SCAQMD Governing Board in March 2017. (SCAQMD, 2017a) The Project's consistency with the *2016 AQMP* was analyzed in detail in EIR Subsection 4.3, *Air Quality*.

7. San Bernardino County Congestion Management Program

The *San Bernardino County Congestion Management Program (CMP)* was prepared by the San Bernardino Associated Governments (SANBAG). The intent of the *CMP* is to more directly link land use, transportation, and air quality planning and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The *San Bernardino CMP* was first adopted in November 1992 and has since been updated 12 times, with the most recent comprehensive update in June 2016. The proposed Project's consistency with the *CMP* is discussed in detail in EIR Subsection 4.14, *Transportation and Traffic*.

8. Riverside County Congestion Management Program

The *Riverside County Congestion Management Program (CMP)* was prepared by the Riverside County Transportation Commission (RCTC). The intent of the *CMP* is to more directly link land use, transportation, and air quality planning and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The *Riverside County CMP* was first adopted in December 1992 and has been updated 11 times, with the most recent comprehensive update in December 2011. The proposed Project's consistency with the *CMP* is discussed in detail in EIR Subsection 4.14, *Transportation and Traffic*.

4.10.3 Basis for Determining Significance

The proposed Project would result in a significant impact related to land use and planning if the Project or any Project-related component would:

a. *Physically divide an established community;*

b. *Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or*

c. *Conflict with any applicable habitat conservation plan or natural community conservation plan.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects that development projects could have on the physical environment due to a land use and planning conflict. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold. An inconsistency or conflict with an applicable plan or policy is regarded as a significant impact under CEQA only if it results in an adverse physical environmental effect.

4.10.4 Impact Analysis

Threshold a: Would the Project physically divide an established community?

Under existing conditions, Merrill Avenue separates the Project site from property to the north, Flight Avenue separates the Project site from property to the east, a tree windrow separates the Project site from property to the west, and the Chino Airport separates the Project site from property to the south. Because the Project site is already physically separated from neighboring properties under existing conditions, development of the Project site as a parcel sorting/distribution center would not physically divide any existing, surrounding community.

Threshold b: Would the Project conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

A. City of Chino General Plan

The land use proposed by the Project Applicant – a parcel sorting/distribution center – is not consistent with the existing City of Chino General Plan Map, which designates the Project site for "Public" land uses. At the time the General Plan was adopted in 2010, the Project site was owned by the County of San Bernardino. The County subsequently identified the property as surplus and sold the Project site to a private party. Regardless, the site's General Plan designation remained "Public." The Project includes an amendment to the City of Chino General Plan Map that would change the Project site's land use designation to "Light Industrial" and, if approved, would eliminate the Project's inconsistency with the General Plan Map. The environmental impacts that would result from the Project's inconsistency with the existing City of Chino General Plan Map are

disclosed throughout this EIR. Where significant environmental effects are identified, mitigation is provided in the applicable subsection of this EIR to reduce the Project's effects to less-than-significant levels (or, if it is not possible to reduce the Project's impacts to less-than-significant levels, mitigation is provided that has a proportional nexus to the Project's impacts to minimize impacts to the maximum level feasible). There are no other potentially significant environmental impacts specifically associated with the Project's land use inconsistency with the existing Chino General Plan Map that have not already been addressed in other portions of this EIR and, therefore, additional mitigation measures beyond those identified throughout this EIR would not be required.

Aside from the Project's conflict with the existing Chino General Plan Map's "Public" land use designation, the Project would not conflict with any specific objectives, policies, or actions in the General Plan's Land Use, Community Character, Housing, Transportation, Economic Development, Open Space and Conservation, Parks and Recreation, Public Facilities and Services, Air Quality, Safety, or Noise elements that were adopted for the purpose of avoiding or mitigating an environmental effect.

B. The Preserve Specific Plan

The Project site is located within The Preserve Specific Plan. The proposed Project is not consistent with the existing Land Use Plan for The Preserve Specific Plan because the existing Land Use Plan designates the Project site for "Public Facilities" land uses. (The Project entitlements include an amendment to The Preserve Specific Plan Land Use Plan that would change the Project site's land use designation to "Light Industrial" and, if approved, would eliminate the Project's inconsistency with the Land Use Plan.) The environmental impacts that would result from the Project's inconsistency with the existing Land Use Plan for The Preserve Specific Plan are disclosed throughout this EIR. Where significant environmental effects are identified, mitigation is provided in the applicable subsection of this EIR to reduce the Project's effects to less-than-significant levels (or, if it is not possible to reduce the Project's impacts to less-than-significant levels, mitigation is provided that has a proportional nexus to the Project's impacts to minimize impacts to the maximum level feasible). There are no other potentially significant environmental impacts specifically associated with the Project's inconsistency with the existing Land Use Plan for The Preserve Specific Plan that have not already been addressed in other portions of this EIR and, accordingly, additional mitigation measures beyond those identified throughout this EIR would not be required.

Aside from the Project's conflict with The Preserve Specific Plan Land Use Map, the Project would not conflict with any of the development regulations or design guidelines contained within the Specific Plan.

C. SCAG Regional Transportation Plan and Sustainable Communities Strategy

As shown in Table 4.10-1, *SCAG RTP/SCS Goal Consistency Analysis*, the Project would not conflict with the adopted *RTP/SCS*. Thus, impacts would be less than significant.

Table 4.10-1 SCAG RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
G1	Align the plan investments and policies with improving regional economic development and competitiveness.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts.
G2	Maximize mobility and accessibility for all people and goods in the region.	No conflict identified. EIR Subsection 4.14, *Transportation and Traffic*, evaluates Project-related traffic impacts and specifies mitigation measures to ensure that roadway and intersection and intersection improvements needed to accommodate Project traffic volumes are implemented concurrent with proposed development.
G3	Ensure travel safety and reliability for all people and goods in the region.	No conflict identified. As disclosed in EIR Subsection 4.14 there are no components of the proposed Project that would result in a substantial safety hazards to motorists.
G4	Preserve and ensure a sustainable regional transportation system.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts.
G5	Maximize the productivity of our transportation system.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. The Project would not conflict with the City Chino's General Plan Transportation Element, which meets this goal to maximize productivity.
G6	Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	No conflict identified. An analysis of the Project's environmental impacts is provided throughout this EIR, and mitigation measures are specified where warranted. Air quality is addressed in EIR Subsection 4.3, *Air Quality*, and mitigation measures are specified to reduce the Project's air quality impacts to the maximum feasible extent. Additionally, and as discussed in EIR Subsection 4.7, *Greenhouse Gas Emissions*, and Subsection 5.4, *Energy Conservation*, the Project would foreseeably incorporate various measures related to building design, landscaping, and energy systems to promote the efficient use of energy.
G7	Actively encourage and create incentives for energy efficiency, where possible.	No conflict identified. This policy provides guidance to City staff to establish local incentive programs to encourage and promote energy efficient development. EIR Subsection 5.4, *Energy Conservation*, discusses the Project's foreseeable design features related to building design, landscaping, and energy systems to promote the efficient use of energy.

Table 4.10-1 SCAG RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
G8	Encourage land use and growth patterns that facilitate transit and active transportation.	No conflict identified. This policy provides guidance to the City to establish a local land use plan that facilitates the use of transit and non-motorized forms of transportation. The Project would develop the subject property with an employment-generating land use (i.e., parcel sorting/distribution center) that would provide local job opportunities to existing and future residents of The Preserve that would be accessible with active transportation.
G9	Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	No conflict identified. This policy provides guidance to the City of Chino to monitor the transportation network and to coordinate with other agencies as appropriate.

Source: (SCAG, 2016b)

D. City of Chino Climate Action Plan (CAP)

The Project's consistency with the City of Chino CAP was addressed in detail in EIR Subsection 4.7, *Greenhouse Gas Emissions* (refer to the analysis presented on Page 4.7-19). As concluded in EIR Subsection 4.7, the Project would not conflict with the City of Chino CAP.

E. SCAQMD Air Quality Management Plan (AQMP)

The Project's consistency with the SCAQMD *2016 AQMP* was addressed in detail in EIR Subsection 4.3, *Air Quality* (refer to the analysis presented on Pages 4.3-20 and 4.3-21). As concluded in EIR Subsection 4.3, the Project would develop land uses on-site that exceed the growth assumptions contained in the SCAQMD *2016 AQMP* and, thus, the Project results in air pollutant emissions that are inconsistent with the projections in the *AQMP*. Mitigation is provided in EIR Subsection 4.3 to reduce the Project's air pollutant emissions to the maximum level feasible. The Project would not result in any other conflicts with the *2016 AQMP* that were not already disclosed in EIR Subsection 4.3. No feasible mitigation measures beyond those identified in EIR Subsection 4.3 are available to reduce this impact to a level of insignificance.

F. San Bernardino County and Riverside County Congestion Management Programs

The Project's consistency with the *San Bernardino County CMP* and *Riverside County CMP* is addressed in EIR Subsection 4.14, *Transportation and Traffic*. As concluded in EIR Subsection 4.14, the Project would contribute to level of service deficiencies along the *San Bernardino County CMP* and *Riverside County CMP* roadway networks (refer to the analysis presented on Pages 4.14-20 through 4.14-26). Mitigation is provided in EIR Subsection 4.14 to reduce the Project's traffic impacts to the maximum level feasible. The Project would not result in any other conflicts with the *San Bernardino County CMP* or *Riverside County CMP* that are not already disclosed in EIR Subsection 4.14. No feasible mitigation measures beyond those identified in EIR Subsection 4.14 are available to reduce this impact to a level of insignificance.

Threshold c: Would the Project conflict with any applicable habitat conservation plan or natural community conservation plan?

The Project site is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

4.10.5 Cumulative Impact Analysis

Under existing conditions, the Project site is physically separated from neighboring land uses by existing man-made features (i.e., roads, fences, windrows). Because the Project site does not directly abut any established land uses, there is no potential for the Project to cause or cumulatively contribute to the division of an established community.

Amendments to the City of Chino General Plan and The Preserve Specific Plan land use designations applied to the Project site would permit development of a parcel sorting/distribution center. The proposed use of the Project site for industrial land uses – as opposed to a public/public facility use as currently planned because at the time the General Plan and The Preserve Specific Plan were adopted, the Project site was owned by the County of San Bernardino – would indirectly result in significant environmental impacts, including impacts related to air quality and traffic, that conflict with plans that were adopted to minimize/avoid adverse environmental impacts. As development occurs elsewhere throughout the cities of Chino, Ontario, and the larger Inland Empire area, any proposal to change the underlying land use or development intensity for a specific property would similarly have the potential to result to conflict with applicable land plans and result in substantial, adverse environmental effects. The Project's contribution to cumulative environmental effects resulting from conflicts with applicable plans would be considerable.

The Project site is not located within the jurisdiction of a habitat conservation plan or natural community conservation plan. Accordingly, there is no potential for the Project or Project-related development to contribute to any cumulatively significant impacts due to a conflict with a habitat conservation plans/natural community conservation plan.

4.10.6 Significance of Impacts Before Mitigation

Threshold a: No Impact. The proposed Project would not physically divide an established community.

Threshold b: Significant Direct and Cumulatively Considerable Impact. The Project's conflict with the existing City of Chino General Plan Land Use Map and The Preserve Specific Plan Land Use Plan would indirectly result in significant environmental impacts, including impacts related air pollutant emissions and traffic congestion.

Threshold c: No Impact. No habitat conservation plans or natural community conservation plans are applicable to the Project site; thus, no impact would occur.

4.10.7 Mitigation

Refer to all mitigation measures presented in this EIR. In instances where significant impacts are identified as part of the Project's construction and/or operational phases, mitigation measures are provided to reduce impacts to less-than-significant levels (or, if it is not possible to reduce the Project's impacts to less-than-significant levels, mitigation is provided to minimize impacts to the maximum level feasible).

4.10.8 Significance of Impacts After Mitigation

Threshold b): Significant and Unavoidable Direct and Cumulatively Considerable Impact. Although mitigation measures are presented in this EIR to address the Project's significant environmental impacts, there is no feasible mitigation to reduce the environmental effects related to the Project's conflict with the *2016 AQMP* and the *San Bernardino County* and *Riverside County CMPs* to below a level of significance.

4.11 NOISE

This Subsection addresses the environmental issue of noise, including existing noise levels in the Project area and the Project's potential to introduce new or elevated sources of noise. The information contained herein is based in part on information contained in a technical report prepared by Urban Crossroads, Inc., dated May 4, 2018, and titled "Chino Parcel Delivery Noise Impact Analysis" (Urban Crossroads, 2018d). The report is included as *Technical Appendix J* to this EIR. Refer to Section 7.0, *References*, for a complete list of reference sources.

4.11.1 NOISE FUNDAMENTALS

A. Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes physical harm, or when it has adverse effects on health. Because the range of sound that the human ear can detect is large, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale. The unit of measure to describe sound intensity is the decibel (dB). Each interval of 10 dB indicates a sound energy 10 times greater than before and is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum (i.e., frequencies that are not audible to the human ear). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at a distance of three feet is roughly 60 dBA, while a jet engine is 110 dBA at approximately 100 feet. (Urban Crossroads, 2018d, pp. 9-10)

B. Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent continuous noise level (L_{eq}). L_{eq} represents a steady state sound level containing the same total energy as a time varying signal over a given time period. L_{eq} are not measured directly but are calculated from sound pressure levels typically measured in dBA. Consequently, L_{eq} can vary depending on the time of day. (Urban Crossroads, 2018d, p. 10)

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{50}, L_{25}, L_8, and L_2, are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent, and 2 percent of a stated time. Sounds levels associated with the L_2 and L_8 typically describe transient or short-term events, while levels associated with the L_{50} describe the steady state (or median) noise conditions. The City of Chino Municipal Code relies on the percentile noise levels to describe stationary source noise level limits. While the L_{50} describes the mean noise levels occurring 50 percent of the time, the L_{eq} accounts for the total energy (average) observed for the entire hour. The L_{eq} noise descriptor is generally 1-2 dBA higher than the L_{50} noise level. (Urban Crossroads, 2018d, p. 10)

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour levels may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level

(CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five (5) dB to sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 dB to sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and nighttime hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure. The City of Chino relies on the 24-hour CNEL level to assess land use compatibility with transportation-related noise sources. (Urban Crossroads, 2018d, p. 10)

C. *Sound Propagation*

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on geometric spreading, ground absorption, atmospheric effects, and shielding. (Urban Crossroads, 2018d, pp. 10-11)

1. Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (Urban Crossroads, 2018d, pp. 10-11)

2. Ground Absorption Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in noise models: soft site and hard site conditions. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. (Urban Crossroads, 2018d, p. 11)

3. Atmospheric Impacts

Receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Other factors that may affect noise levels include air temperature, humidity, and turbulence. (Urban Crossroads, 2018d, p. 11)

4. Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Solid objects or barriers are most effective at attenuating noise levels. Effective noise barriers can reduce noise levels by 10 to 15 dBA. Noise barriers, however, do have

limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (Urban Crossroads, 2018d, p. 11)

D. Traffic Noise Prediction

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. 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 mix on a given roadway may also have an effect on CNEL. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, noise levels will increase. (Urban Crossroads, 2018d, p. 37)

E. Response to Noise

Approximately 10% of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment, some complaints will occur. Another 25% of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels: an increase of 1 dBA cannot be perceived except in carefully controlled laboratory experiments; a change of 3 dBA is considered "barely perceptible;" and a change of 5 dBA is considered "readily perceptible." (Urban Crossroads, 2018d, p. 12)

F. Vibration

Vibration is the periodic oscillation of a medium or object. Sources of groundborne vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration is often described in units of velocity (inches per second) and decibels (dB) and is denoted as VdB. (Urban Crossroads, 2018d, pp. 13-14)

The background vibration-velocity level in residential areas is generally 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. (Urban Crossroads, 2018d, p. 14)

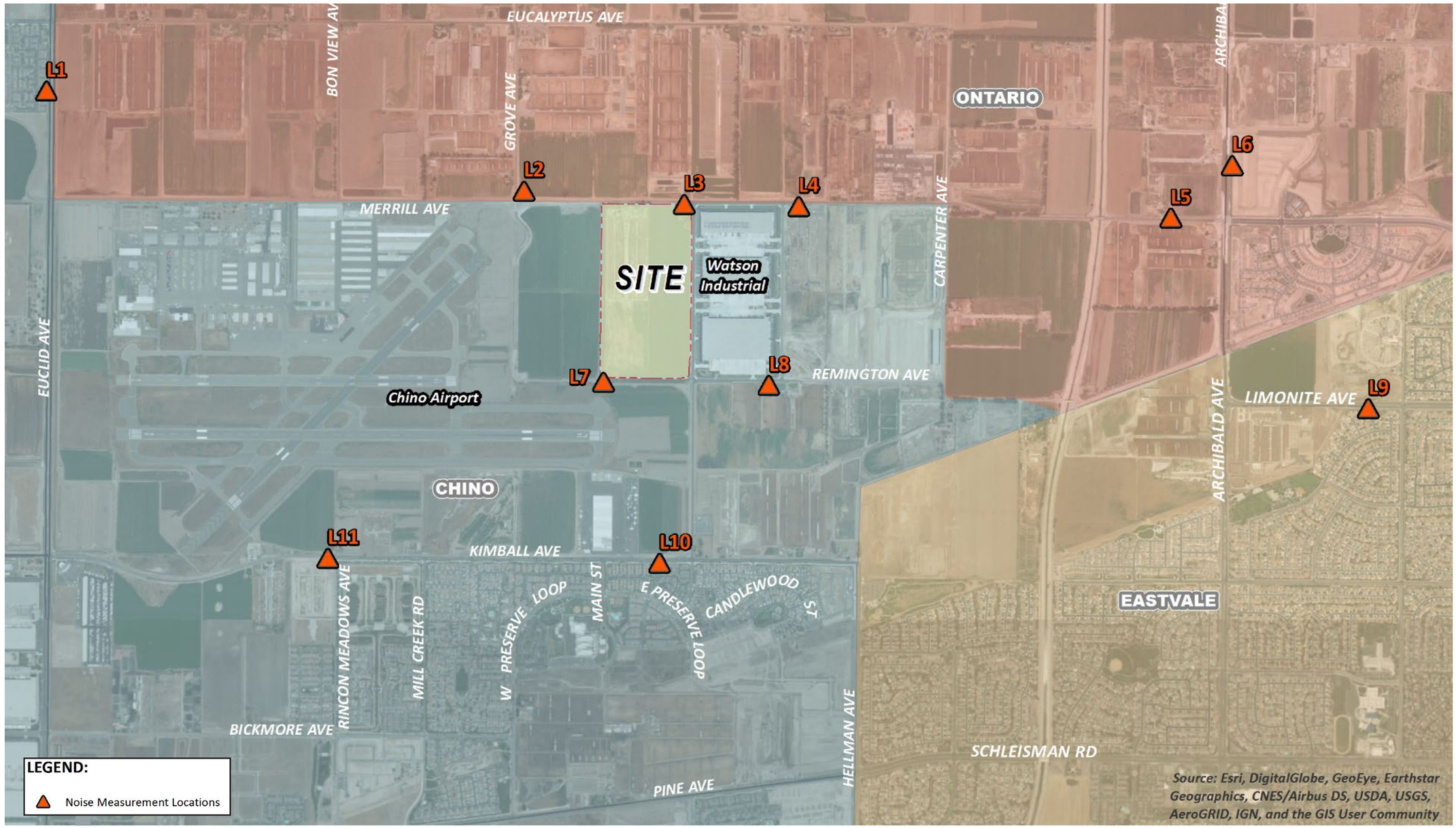
4.11.2 Existing Noise Conditions

A. *Existing Study Area Ambient Noise Conditions*

Urban Crossroads recorded 24-hour noise readings at 11 locations near the Project site on February 15 and 21, 2018. The noise measurement locations are identified in Figure 4.11-1, *Noise Measurement Locations*. The existing ambient noise levels in the vicinity of the Project site are dominated by traffic noise associated with automobiles and truck traffic on the local arterial roadway network and aircraft flyovers from the Chino Airport. (Urban Crossroads, 2018d, pp. 31, 34)

The results of the existing noise level measurements are listed in Table 4.11-1, *Existing 24-Hour Ambient Noise Level Measurements*, and summarized below. Refer to Appendix 5.2 of *Technical Appendix J* for the noise measurement worksheets used by Urban Crossroads to calculate the noise levels, including a summary of the hourly noise levels and the minimum and maximum observed noise levels at each measurement location.

- Location L1 represents the noise levels northwest of the Project site at an existing master-planned residential community that abuts Euclid Avenue and is located south of Eucalyptus Avenue. The daytime hourly noise levels measured at Location L1 ranged from 69.8 to 73.9 dBA L_{eq}, with an average daytime noise level of 72.7 dBA L_{eq}. The nighttime hourly noise levels collected at Location L1 ranged from from 65.2 to 74.8 dBA L_{eq}, with an average nighttime noise level of 70.7 dBA L_{eq}. The noise level measurements collected at Location L2 correlate to an overall 24-hour exterior noise level of 77.7 dBA CNEL. (Urban Crossroads, 2018d, p. 32)
- Location L2 represents the noise levels at the northeast corner of Grove Avenue and Merrill Avenue (west of the Project site). The daytime hourly noise levels measured at Location L2 ranged from 62.1 to 71.7 dBA L_{eq}, with an average daytime noise level of 69.2 dBA L_{eq}. The nighttime hourly noise levels at Location L2 ranged from 61.0 to 70.0 dBA L_{eq}, with an average nighttime noise level of 66.9 dBA L_{eq}. The noise level measurements collected at Location L2 correlate to an overall 24-hour exterior noise level of 73.9 dBA CNEL. (Urban Crossroads, 2018d, p. 32)
- Location L3 represents the noise levels abutting the northeastern portion of the Project site. At Location L3 the background ambient noise levels ranged from 58.4 to 67.5 dBA L_{eq} during daytime hours to levels of 55.0 to 67.8 dBA L_{eq} during nighttime hours. The average daytime noise level was calculated at 64.7 dBA L_{eq} while the average nighttime noise level was calculated at 62.7 dBA L_{eq}. The noise measurements collected at Location L3 correlate to an overall 24-hour exterior noise level of 69.6 dBA CNEL. (Urban Crossroads, 2018d, p. 32)
- Location L4 represents the noise levels located east of the Project site along Merrill Avenue. The hourly noise levels measured at Location L4 ranged from 63.7 to 71.7 dBA L_{eq} during daytime hours and from 58.9 to 70.1 dBA L_{eq} during nighttime hours. The average daytime noise level at Location L4 was calculated at 69.2 dBA L_{eq} and the average nighttime noise level was calculated at 65.2 dBA L_{eq}. The noise level measurements collected at Location L4 correlate to an overall 24-hour exterior noise level of 72.6 dBA CNEL. (Urban Crossroads, 2018d, p. 32)



Source(s): Urban Crossroads (05-04-2018)

Figure 4.11-1

NOT TO SCALE

NOISE MEASUREMENT LOCATIONS

Table 4.11-1 Existing 24-Hour Ambient Noise Level Measurements

Location	Distance to Project Boundary (Feet)	Description	Energy Average Hourly Noise Level (dBA Leq)[1]		CNEL
			Daytime	Nighttime	
L1	8,400'	Located northwest of the Project site on Euclid Avenue adjacent to existing residential homes.	72.7	70.7	77.7
L2	1,180'	Located northwest of the Project site on the northeast corner of Grove Avenue and Merrill Avenue.	69.2	66.9	73.9
L3	10'	Located north of the Project site on Merrill Avenue adjacent to existing agricultural use.	64.7	62.7	69.6
L4	1,600'	Located east of the Project site on Merrill Avenue near existing residential homes.	69.2	65.2	72.6
L5	7,100'	Located east of the Project site on Merrill Avenue adjacent to an existing residential home on agricultural land use.	68.6	67.6	74.4
L6	8,050'	Located east of the Project site on Archibald Avenue adjacent to future residential homes.	66.0	63.8	70.9
L7	0'	Located south of the Project site on Remington Avenue near Chino Airport.	60.9	53.1	62.5
L8	1,200'	Located east of the Project site on Remington Avenue near an existing residential home and industrial warehouse.	58.7	54.2	61.9
L9	10,100'	Located east of the Project site on Limonite Avenue adjacent to existing residential homes west of Harrison Avenue.	68.9	67.5	74.4
L10	2,700'	Located south of the Project site adjacent to existing residential homes south of Kimball Avenue.	74.3	72.2	79.2
L11	4,850'	Located southwest of the Project site adjacent to future residential homes at the southwest corner of Rincon Meadows Avenue and Kimball Avenue.	62.5	58.5	66.1

[1]Energy (logarithmic) average hourly levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
Source: (Urban Crossroads, 2018d, Table 5-1)

- Location L5 represents the noise levels along Merrill Avenue, west of Archibald Avenue (east of the Project site). At Location L5 the daytime hourly noise levels ranged from 63.7 to 70.6 dBA L_{eq} with an average daytime noise level of 68.6 dBA L_{eq}. The nighttime hourly noise levels at Location L5 ranged from 62.9 to 71.8 dBA L_{eq} and the average nighttime noise level was 67.6 dBA L_{eq}. The noise level measurements collected at Location L5 correlate to an overall 24-hour exterior noise level of 74.4 dBA CNEL. (Urban Crossroads, 2018d, p. 32)
- Location L6 represents the noise levels along Archibald Avenue, north of Merrill Avenue (northeast of the Project site). The hourly noise levels measured at Location L6 ranged from 63.9 to 68.8 dBA L_{eq} during daytime hours and from 57.5 to 68.9 dBA L_{eq} during nighttime hours. The daytime noise level was calculated at 66.0 dBA L_{eq} with an average nighttime noise level of 63.8 dBA L_{eq}. The noise level measurements collected at Location L6 correlate to an overall 24-hour exterior noise level of 70.9 dBA CNEL. (Urban Crossroads, 2018d, p. 33)

- Location L7 represents the noise levels at the southwest corner of the Project site. The hourly noise levels measured at Location L7 ranged from 52.5 to 64.8 dBA L_{eq} during daytime hours and from 44.8 to 59.0 dBA L_{eq} during nighttime hours. The average daytime noise level was calculated at 60.9 dBA L_{eq} with an average nighttime noise level of 53.1 dBA L_{eq}. The noise level measurements collected at Location L7 correlate to an overall 24-hour exterior noise level of 62.5 dBA CNEL. (Urban Crossroads, 2018d, p. 33)
- Location L8 represents the noise levels near the intersection of Remington Avenue and Baker Avenue (located east of the Project site). At Location L8 the hourly daytime noise levels ranged from 51.3 to 62.5 dBA L_{eq}, with an average daytime noise level of 58.7 dBA L_{eq}. At Location L8, the hourly nighttime noise levels ranged from 47.4 to 59.7 dBA L_{eq} during the nighttime hours; the average nighttime noise level was 54.2 dBA L_{eq}. The noise level measurements collected at Location L8 correlate to an overall 24-hour exterior noise level is 61.9 dBA CNEL. (Urban Crossroads, 2018d, p. 33)
- Location L9 represents the noise levels along Limonite Avenue, east of Archibald Avenue (east of the Project site). The hourly noise levels measured at Location L9 ranged from 66.9 to 70.9 dBA L_{eq} during daytime hours and from 61.6 to 71.2 dBA L_{eq} during nighttime hours. At Location L9, the average daytime noise level was calculated to be 68.9 dBA L_{eq} while the average nighttime noise level was calculated to be 67.5 dBA L_{eq}. The noise level measurements collected at Location L9 correlate to an overall 24-hour exterior noise level of 74.4 dBA CNEL. (Urban Crossroads, 2018d, p. 33)
- Location L10 represents the noise levels south of the Project site, near the intersection of Kimball Avenue and Flight Avenue. The hourly noise levels measured at Location L10 ranged from 69.1 to 75.8 dBA L_{eq} during daytime hours and from 65.9 to 77.8 dBA L_{eq} during nighttime hours. The average daytime noise level at Location L10 was calculated at 74.3 dBA L_{eq} and the average nighttime noise level was calculated at 72.2 dBA L_{eq}. The noise level measurements collected at Location L10 correlate to an overall 24-hour exterior noise level of 79.2 dBA CNEL. (Urban Crossroads, 2018d, p. 33)
- Location L11 represents the noise levels near the intersection of Kimball Avenue and Rincon Meadows Drive (located southwest of the Project site). At Location L11 the ambient noise levels ranged from 59.9 to 65.1 dBA L_{eq} during daytime hours and from 47.7 to 63.8 dBA L_{eq} during nighttime hours. The average daytime noise level at Location L11 was calculated at 62.5 dBA L_{eq} and the average nighttime noise level was calculated at 58.5 dBA L_{eq}. The noise level measurements collected at Location L11 correlate to an overall 24-hour exterior noise level of 66.1 dBA CNEL. (Urban Crossroads, 2018d, p. 33)

B. Existing Groundborne Vibration

There are no sources of perceptible groundborne vibration on the Project site under existing conditions.

C. *Airport Noise*

The Project site is located near the Chino Airport. According to noise modeling conducted on behalf of the Riverside County Airport Land Use Commission (ALUC), most of the Project site is located outside of the 65 dBA CNEL contour from aircraft noise; however, a small portion of the southwest corner of the Project site is located within the 65 dBA CNEL aircraft noise contour (Urban Crossroads, 2018d, pp. 23, 24).

4.11.3 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws and regulations related to noise that are applicable to the Project, the Project site, and/or the surrounding area.

A. *Federal Plans, Policies, and Regulations*

1. *Noise Control Act of 1972*

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to (1) establish a means for effective coordination of Federal research and activities in noise control; (2) authorize the establishment of Federal noise emission standards for products distributed in commerce; and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products. (EPA, 2017i)

While primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment. The Environmental Protection Agency (EPA) is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control. (EPA, 2017i)

2. *Federal Transit Administration*

The Federal Transit Administration (FTA) published a *Noise and Vibration Impact Assessment* (*NVIA*), which provides guidance for preparing and reviewing the noise and vibration sections of environmental documents. In the interest of promoting quality and uniformity in assessments, the manual is used by project sponsors and consultants in performing noise and vibration analyses for inclusion in environmental documents. The manual sets forth the methods and procedures for determining the level of noise and vibration impact resulting from most federally-funded transit projects and for determining what can be done to mitigate such impact. (FTA, 2006, p. 1-1)

3. *Federal Highway Administration*

The Federal Highway Administration (FHWA) is the agency responsible for administering the Federal-aid highway program in accordance with Federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, applies to highway construction projects where a State department of transportation has requested Federal funding for participation in the project. The regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the

reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The highway agency must incorporate all feasible and reasonable noise abatement into the project design. (FHWA, 2017)

The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in Title 23 of the United States Code of Federal Regulations Part 772. The regulations contain noise abatement criteria, which represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. The regulations do not require meeting the abatement criteria in every instance. Rather, they require highway agencies make every reasonable and feasible effort to provide noise mitigation when the criteria are approached or exceeded. Compliance with the noise regulations is a prerequisite for the granting of federal-aid highway funds for construction or reconstruction of a highway. (FHWA, 2017)

4. Construction-Related Hearing Conservation

The Occupational Safety and Health Administration (OSHA) hearing conservation program is designed to protect workers with significant occupational noise exposures from hearing impairment even if they are subject to such noise exposures over their entire working lifetimes. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (OSHA, 2002)

B. State Plans, Policies, and Regulations

1. State of California Noise Requirements

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city in the State of California 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.

2. Building Standards Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Standards Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

3. OPR General Plan Guidelines

Though not adopted by law, the 2017 California General Plan Guidelines, published by the California Governor's Office of Planning and Research (OPR), provides guidance for local agencies in preparing or updating General Plans. The Guidelines provide direction on the required Noise Element portion of the General Plans. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. Local governments must "analyze and quantify" noise levels and the extent of noise exposure through actual measurement or the use of noise modeling. Technical data relating to mobile and point sources must be collected and synthesized into a set of noise control policies and programs that "minimizes the exposure of community residents to excessive noise." Noise level contours must be mapped and the conclusions of the element used as a basis for land use decisions. The element must include implementation measures and possible solutions to existing and foreseeable noise problems. Furthermore, the policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements. The noise element directly correlates to the Land Use, Circulation, and Housing Elements. The Noise Element must be used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. The noise levels from existing land uses, including mining, agricultural, and industrial activities, must be closely analyzed to ensure compatibility, especially where residential and other sensitive receptors have encroached into areas previously occupied by these uses. (OPR, 2017b, p. 131)

C. Local Plans, Policies, and Regulations

1. City of Chino General Plan

The City of Chino General Plan Noise Element addresses the control and abatement of noise and specifies the maximum allowable exterior noise levels for developments that would be impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. The noise standards included in the General Plan are summarized in Table 4.11-2, *City of Chino Noise Element Interior and Exterior Noise Standards.*

2. City of Chino Municipal Code

❑ Construction Noise Standards

The Chino Municipal Code limits the hours during which construction activities may take place. Construction activities in the City of Chino may only occur between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday with no construction activities allowed on Sundays and federal holidays (unless a waiver is granted by the City pursuant to Municipal Code Section 15.44.030), and provided the noise levels do not exceed the levels listed below on a residential property (Urban Crossroads, 2017c, p. 21).

- 65 dBA for a cumulative period of no more than 30 minutes in any hour (L_{50})
- 70 dBA for a cumulative period of no more than 15 minutes in any hour (L_{25});
- 75 dBA for a cumulative period of no more than five (5) minutes in any hour (L_{8});
- 80 dBA for a cumulative period of more than one (1) minute in any hour (L_{2}); and /or
- 85 dbA for any period of time.

Table 4.11-2 City of Chino Noise Element Interior and Exterior Noise Standards

Land Use Category	Uses	Energy Average L_{dn} Interior[a]	Energy Average L_{dn} Exterior[b]
Residential	Single-family, duplex, multi-family	45[c]	65
	Mobile home	---	65[d]
Commercial, Industrial, Institutional	Hotel, motel, transient lodging	45	65
	Commercial retail, bank, restaurant	55	---
	Office building, research and development, professional offices, City office building	50	---
	Amphitheatre, concert hall, auditorium, meeting hall	45	---
	Gymnasium (multipurpose)	50	---
	Sports club	55	---
	Manufacturing, warehousing, wholesale, utilities	65	---
	Movie theaters	45	---
Institutional	Hospital, schools, classroom	45	65
	Church, library	45	---
Open Space	Parks	---	65

[a] Indoor environment excluding: bathrooms, toilets, closets, corridors.
[b] Outdoor environment limited to: private yard of single-family or multi-family private patio or balcony which is served by a means of exit from inside, mobile home park, hospital patio, park's picnic area, school's playground, and hotel and motel recreation area.
[c] Noise level requirement with closed windows. Mechanical ventilation system or other means of natural ventilation shall be provided per the California Building Code.
[d] Exterior noise level should be such that interior noise levels will not exceed 45 dB L_{dn}.
Source: (Chino, 2010a, Table N-3)

❑ Operational Noise Standards

The City of Chino Municipal Code does not establish operational noise standards for commercial or industrial land uses; but, does establish maximum noise levels that residential properties can be exposed to, as listed below (Urban Crossroads, 2018d, pp. 19, 20)

- 55 dBA (daytime) or 50 dBA (nighttime) for a cumulative period of no more than 30 minutes in an hour (L_{50});

- 60 dBA (daytime) or 55 dBA (nighttime) for a cumulative period of no more than fifteen minutes in an hour (L_{25});
- 65 dBA (daytime) or 60 dBA (nighttime) for a cumulative period of no more than five minutes in an hour (L_8);
- 70 dBA (daytime) or 65 dBA (nighttime) for a cumulative period of more than one minute in an hour (L_2); and /or
- 75 dBA (daytime) or 70 dBA (nighttime) for any period of time.

❑ **Vibration Standards**

Chino Municipal Code Section 9.40.110 prohibits any operational activity that creates perceptible vibration (more than 0.05 inches per second, in/sec). Pursuant to Chino Municipal Code Section 9.40.060(D), construction activities are exempt from any vibration standards so long as construction activities do not generate vibration that endangers the public health, welfare, and/or safety. (Urban Crossroads, 2018d, p. 22).

❑ **Construction Management Plan**

Pursuant to City of Chino Municipal Code Section 20.23.210, a construction management plan is required for all construction activities that have the potential to impact adjacent residents or businesses. The construction management plan, which must be prepared to the satisfaction of the City of Chino Director of Community Development prior to issuance of construction permits (grading and building) and implemented by the construction contractor(s), is required to contain measures to minimize adverse construction-related noise effects.

3. The Ontario Plan

Merrill Avenue, which abuts the Project site on the north, is the boundary between the Cities of Chino and Ontario. Land uses within the City of Ontario are subject to the noise guidelines and standards established by the Ontario Plan and the City of Ontario Municipal Code, discussed below.

The Ontario Plan Policy Plan addresses land use compatibility and the control and abatement of noise via the Land Use and Safety Elements. The noise standards included in the Policy Plan are summarized in Table 4.11-3, *City of Ontario Noise Level Exposure and Land Use Compatibility Guidelines*.

4. City of Ontario Municipal Code

❑ **Construction Noise Standards**

Section 5-29.09 of the Ontario Municipal Code limits the hours during which construction may take place in the City of Ontario; but, does not specify a maximum allowable noise level for construction activities. Pursuant to the Ontario Municipal Code, construction activities may only occur within the City of Ontario on weekdays between the hours of 7:00 a.m. and 6:00 p.m. and on weekends between the hours of 9:00 a.m. and 6:00 p.m. (Urban Crossroads, 2018d, pp. 20-21)

Table 4.11-3 City of Ontario Noise Level Exposure and Land Use Compatibility Guidelines

LAND USE CATEGORIES		COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)						
Category	Land Use	55	60	65	70	75	80	
Residential/ Lodging	Single Family / Duplex							
	Multi-Family							
	Mobile Homes							
	Hotel/Motels							
Public/Institutional	Schools/Hospitals							
	Churches/ Libraries							
	Auditoriums/Concert Halls							
Commercial	Offices							
	Retail							
Industrial	Manufacturing							
	Warehousing							
Recreational/ Open Space	Parks/Playgrounds							
	Golf Courses/ Riding Stables							
	Outdoor Spectator Sports							
	Outdoor Music Shells/ Amphitheaters							
	Livestock/Wildlife Preserves							
	Crop Agriculture							

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: (Ontario, n.d., Table LU-7)

❑ Operational Noise Standards

Ontario Municipal Code Section 5-29.04(a) establishes maximum daytime and nighttime exterior noise levels based on land use, as summarized below. (Urban Crossroads, 2018d, pp. 19-20)

- For single-family residential land uses, 65 dBA L_{eq} between 7:00 a.m. and 10:00 p.m. and 45 dBA L_{eq} between 10:00 p.m. and 7:00 a.m.

- For multi-family residential land uses, 65 dBA L_{eq} between 7:00 a.m. and 10:00 p.m. and 50 dBA L_{eq} between 10:00 p.m. and 7:00 a.m.
- For commercial land uses, 65 dBA L_{eq} between 7:00 a.m. and 10:00 p.m. and 60 dBA L_{eq} between 10:00 p.m. and 7:00 a.m.
- For industrial land uses, 70 dBA L_{eq} during all times of the day.

4.11.4 Methodology for Estimating Project-Related Noise Impacts

A. Construction Noise Analysis Methodology

Urban Crossroads collected reference noise level measurements at construction sites throughout southern California that were using the same types of construction equipment that would be used to construct the proposed Project and that were performing similar types of construction activities at a similar level of activity as would occur on the Project site (refer to EIR Section 3.0, *Project Description*, for a description of the construction equipment and construction activities that would be needed to construct the proposed Project). Table 4.11-4, *Construction Reference Noise Levels*, provides a summary of the reference noise level measurements. Because the reference noise measurements were collected at different distances to the primary noise source, all construction noise level measurements presented in Table 4.11-4 were normalized by Urban Crossroads to describe a common reference distance of 50 feet. (Urban Crossroads, 2018d, p. 73)

The construction noise analysis evaluates Project-related construction noise levels at the nearby sensitive receiver locations in the Project study area. This analysis of construction-related noise does not evaluate the noise exposure of construction workers within the Project site based on CEQA's requirements to evaluate impacts to the existing environment; CEQA does not require an evaluation of the Project's impacts upon itself. During construction activities, periodic exposure to high noise levels in short duration, such as would occur during the Project's construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment.

B. Transportation-Related Noise Analysis Methodology

Transportation-related noise impacts were projected using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model FHWA-RD-77-108 (the "FHWA Model"). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California, the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMELs to account for: 1) roadway classification (e.g., collector, secondary, major or arterial), 2) roadway travel width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), 3) total average daily traffic (ADT), 4) travel speed, 5) percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, 6) roadway grade, 7) angle of view (e.g., whether the roadway view is blocked), 8) site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and 9) percentage of total ADT that flows each hour throughout a 24-hour period. (Urban Crossroads, 2018d, p. 37)

Table 4.11-4 Construction Reference Noise Levels

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance (dBA Leq)	Reference Noise Levels @ 50 Feet (dBA Leq)[6]
1	Truck Pass-Bys & Dozer Activity[1]	30'	63.6	59.2
2	Dozer Activity[1]	30'	68.6	64.2
3	Construction Vehicle Maintenance Activities[2]	30'	71.9	67.5
4	Foundation Trenching[2]	30'	72.6	68.2
5	Rough Grading Activities[2]	30'	77.9	73.5
6	Water Truck Pass-By & Backup Alarm[3]	30'	76.3	71.9
7	Dozer Pass-By[3]	30'	84.0	79.6
8	Concrete Mixer Truck Movements[4]	50'	71.2	71.2
9	Concrete Paver Activities[4]	30'	70.0	65.6
10	Concrete Mixer Pour & Paving Activities[4]	30'	70.3	65.9
11	Concrete Mixer Backup Alarms & Air Brakes[4]	50'	71.6	71.6
12	Concrete Mixer Pour Activities[4]	50'	67.7	67.7
13	Forklift, Jackhammer, & Metal Truck Bed Loading[5]	50'	67.9	67.9

[1]As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.
[2]As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.
[3]As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.
[4]Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.
[5]As measured by Urban Crossroads, Inc. on 9/9/16 during the demolition of an existing parking lot at 41 Corporate Park in Irvine.
[6]Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).
Source: (Urban Crossroads, 2018d, Table 10-1)

Table 4.11-5, *Roadway Parameters*, presents the FHWA Model roadway parameters used by Urban Crossroads for each of the 39 roadway segments in the study area. For the purpose of the off-site analysis, soft site conditions were used to analyze the traffic noise impacts on each roadway segment in the study area because landscaping typically exists between the street surface and the noise receiver. (Urban Crossroads, 2018d, p. 37)

To quantify transportation-related noise levels, the vehicular trips associated with the Project were assigned to the 39 roadway segments in the study area, using the trip distribution and vehicle mix information contained in the Project's traffic impact analysis prepared by Urban Crossroads (refer to *Technical Appendix K*) (Urban Crossroads, 2018d, pp. 37-38).

Table 4.11-5 Roadway Parameters

ID	Roadway	Segment	Adjacent Planned (Existing) Land Use[1]	Distance from Centerline to Nearest Adjacent Land Use (Feet)[2]	Posted Vehicle Speed (mph)
1	Euclid Av.	s/o SR-60	Commercial	80'	55
2	Euclid Av.	s/o Walnut Av.	Residential	80'	55
3	Euclid Av.	s/o Riverside Dr.	Residential	103'	55
4	Euclid Av.	s/o Chino Av.	Residential	103'	55
5	Euclid Av.	s/o Schaefer Av.	Commercial	103'	55
6	Euclid Av.	s/o Edison Av.	Business Park	103'	55
7	Euclid Av.	s/o Eucalyptus Av.	Residential	103'	55
8	Euclid Av.	s/o Merrill Av.	Public	103'	55
9	Euclid Av.	s/o Kimball Av.	Office Commercial	103'	55
10	Euclid Av.	s/o Bickmore Av.	Regional Commercial	103'	55
11	Euclid Av.	s/o Pine Av.	Urban Reserve	103'	55
12	Flight Av.	n/o Merrill Av.	Business Park (Ag.)	44'	50
13	Hellman Av.	s/o Kimball Av.	Residential	49'	45
14	Hellman Av.	s/o Pine Av.	Residential	49'	45
15	Archibald Av.	n/o Riverside Dr.	Residential	74'	50
16	Archibald Av.	s/o Riverside Dr.	Residential	74'	55
17	Archibald Av.	s/o Chino Av.	Residential	74'	55
18	Archibald Av.	s/o Schaefer Av.	Residential	74'	55
19	Archibald Av.	s/o Ontario Ranch Rd.	Residential	74'	55
20	Archibald Av.	s/o Eucalyptus Av.	Residential	74'	55
21	Archibald Av.	s/o Merrill Av.	Residential	74'	55
22	Archibald Av.	s/o Limonite Av.	Commercial	76'	55
23	Merrill Av.	e/o Euclid Av.	Commercial	44'	50
24	Merrill Av.	e/o Bon View Av.	Public	44'	50
25	Merrill Av.	e/o Flight Av.	Business Park	44'	50
26	Merrill Av.	e/o Hellman Av.	Industrial	44'	50
27	Kimball Av.	w/o Euclid Av.	Urban Reserve	44'	50
28	Kimball Av.	e/o Euclid Av.	Public	49'	50
29	Kimball Av.	e/o Rincon Meadows Av.	Residential	49'	50
30	Kimball Av.	e/o Mill Creek Av.	Residential	49'	50
31	Kimball Av.	e/o Main St.	Residential	49'	50
32	Kimball Av.	e/o Flight Av.	Residential	49'	50
33	Kimball Av.	e/o Meadow Valley Av.	Residential	49'	50
34	Limonite Av.	e/o Hellman Av.	Industrial	76'	50
35	Limonite Av.	e/o Archibald Av.	Commercial	76'	50
36	Limonite Av.	e/o Harrison Av.	Residential	76'	50
37	Limonite Av.	e/o Sumner Av.	Residential	76'	50
38	Limonite Av.	e/o Scholar Wy.	Residential	76'	50
39	Limonite Av.	e/o Hamner Av.	Commercial	76'	45

[1]Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the General Plan Circulation Elements.

Source: (Urban Crossroads, 2018d, Table 6-1)

C. *Vibration*

Vibration levels were predicted using reference vibration levels and logarithmic equations contained in the Federal Transit Administration's (FTA) 2006 publication: "Transit Noise and Vibration Impact Assessment." The vibration source levels for Project construction equipment are summarized in Table 4.11-6, *Vibration Source Levels for Construction Equipment*. (Urban Crossroads, 2018d, p. 46)

Table 4.11-6 Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Source: (Urban Crossroads, 2018d, Table 6-9)

4.11.5 Basis for Determining Significance

The proposed Project would result in a significant noise impact if the Project or any Project-related component would:

a. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels;

c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

e. For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or

f. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse noise-related effects that could result from development projects. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold. The specific, quantitative criteria described below are utilized to evaluate the significance of potential noise impacts under Thresholds "a," "b," "c," and "d" and are based on applicable City of Chino regulations, City of Ontario regulations, and relevant federal and State performance standards.

In relation to Threshold "a," the City of Chino noise ordinance (Chino Municipal Code Chapter 9.40) and the City of Ontario noise ordinance (Ontario Municipal Code Chapter 5-29) are the only relevant, established noise standards for the Project's study area. Pursuant to the Chino and Ontario Municipal Codes, the Project would result in a significant noise impact relative to Threshold "a" if any of the following were to occur.

- Construction activities occur outside of the hours permitted by the City of Chino Municipal Code (between 7:00 a.m. and 8:00 p.m. Monday through Saturday with no construction allowed on Sundays and federal holidays), unless a waiver is granted by the City of Chino; or
- Construction activities expose noise-sensitive receptors in the City of Chino to noise levels in excess of 65 dBA L_{eq} [Note: As described earlier in this Subsection, the Chino Municipal Code relies on percentile noise levels to describe noise level limits (e.g., L_{50}, which describes the mean noise levels occurring 50 percent of the time). The L_{eq} noise descriptor, which reports the average sound energy of a fluctuating noise source over a period of time, is used for purposes of the construction analysis because L_{eq} is generally 1-2 dBA higher than the associated L_{50} noise level and, therefore, use of L_{eq} would overestimate the Project's actual impact.]; or
- Daytime operational activities on the Project site expose noise-sensitive receivers located in the City of Chino to 55 dBA L_{50}, 60 dBA L_{25}, 65 dBA L_8, 70 dBA L_2, and/or 75 dBA L_{MAX};
- Daytime operational activities on the Project site expose receivers located in the City of Ontario to noise levels in excess of the following:
  - 65 dBA Leq for residential and commercial land uses land uses; or
  - 70 dBA Leq for industrial land uses.
- Nighttime operational activities on the Project site expose noise-sensitive receivers located in the City of Chino to 50 dBA L_{50}, 55 dBA L_{25}, 60 dBA L_8, 75 dBA L_2, and/or 70 dBA L_{MAX}; or.
- Nighttime operational activities on the Project site expose receivers located in the City of Ontario to noise levels in excess of the following:
  - 45 dBA L_{eq} for residential land uses land uses;
  - 50 dBA L_{eq} for commercial land uses; or
  - 70 dBA L_{eq} for industrial land uses.

The Chino Municipal Code (Section 9.40.110) establishes vibration limits for operational activities but exempts construction activities from a specific, numerical vibration standard. To provide a conservative analysis, the Project's construction and operational activities will be evaluated against the City's operational vibration standard. For evaluation under Threshold "b," vibration levels are considered significant if Project-related activities would:

- Create or cause to be created any vibration activity that would exceed 0.05 in/sec RMS velocity at a residential land use.

While the Chino and Ontario Municipal Codes include noise standards that are sufficient to assess the significance of noise impacts under Threshold "a," the Municipal Codes do not define the levels at which noise increases are considered substantial. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of sensitive receptors in order to determine if a noise increase represents a substantial increase and thus a significant adverse environmental impact. For purposes of this EIR, the significance thresholds are adapted from the noise compatibility criteria by land use category provided in the General Plan Guidelines, a publication of the California Office of Planning and Research (OPR, 2017b, p. 377). Based on the noise level increases that are normally perceptible to humans, and adapted from the standards listed in the Chino and Ontario Municipal Codes noise level increases associated with the Project's operation and construction will be considered significant under Thresholds "c" and "d," respectively, based on the following:

For evaluation under Threshold "c," the Project would result in a significant noise impact if the Project's stationary source (on-site) or mobile source (off-site traffic) activities result in:

- A 5 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise level is less than 60 dBA CNEL;
- A 3 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise level is between 60.1 and 65 dBA CNEL;
- A 1.5 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise levels exceeds 65.1 dBA CNEL;
- A 5 dBA or greater noise level increase at non-noise-sensitive receptors when the existing ambient noise level is less than 70 dBA CNEL *and* the additional noise causes ambient noise levels to exceed 70 dBA CNEL; or
- A 3 dBA or greater noise level increase at non-noise-sensitive receptors when the existing ambient noise level exceeds 70 dBA CNEL.

For evaluation under Threshold "d," the Project would result in a significant noise impact if the Project's construction activities result in:

- Noise that exceeds 65 dBA L_{eq} when measured at a noise-sensitive receptor.

4.11.6 IMPACT ANALYSIS

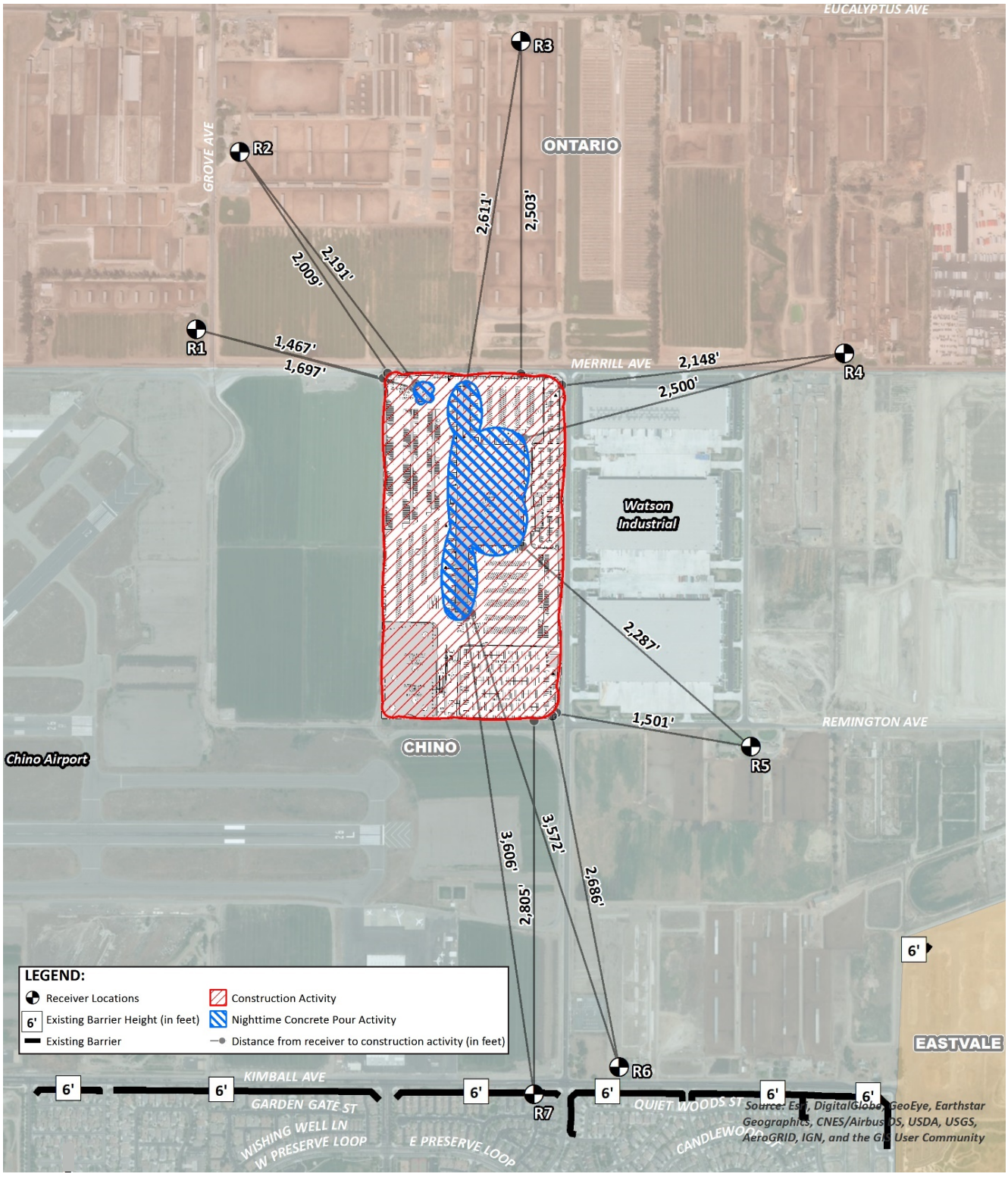
Threshold a:	***Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***
Threshold c:	***Would the Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***
Threshold d:	***Would the Project result in a substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

The analysis presented on the following pages summarizes the Project's potential construction noise levels and operational noise levels, including operational noise that would be generated on-site as well as off-site noise that would be generated by the Project's traffic. The detailed noise calculations for the analysis presented here are provided in Appendices 7.1, 9.1, and 9.2 of *Technical Appendix J*.

A. Construction Noise Impact Analysis

Construction activities on the Project site are proposed to primarily occur on weekdays during daylight hours; however, specific construction activities (i.e., concrete pouring for building foundation and tilt-up wall panels) could occur on weekdays during nighttime hours because cool temperatures are needed to pour and cure concrete and daytime air temperatures are often too warm. Pursuant to Chino Municipal Code Section 15.44.030, the City would have to approve any nighttime construction activities. Construction activities on the Project site are expected to proceed in five stages: 1) demolition; 2) grading; 3) building construction; 4) paving; and 5) application of architectural coatings. These activities would create temporary periods of noise when heavy construction equipment is in operation and would cause a short-term increase in ambient noise levels. Examples of construction equipment that generate noise include, but are not limited to, off-road equipment (e.g., graders, scrapers), power tools, concrete mixers, and portable generators.

Construction noise levels were calculated at the seven (7) representative noise sensitive receiver locations illustrated on Figure 4.11-2, *Construction Noise Receiver* Locations. The modeled receiver locations include existing homes in the Project vicinity and are representative of existing sensitive receptors nearest the Project site. It is not necessary to study every single receiver location surrounding Project's construction area because receivers located at a similar distance from Project-related construction activities with similar ground elevations, orientation, and intervening physical conditions as the seven modeled receptor locations would experience the same or very similar noise effects as those disclosed herein. The Project's construction noise levels at the modeled receiver locations is summarized in Table 4.11-7, *Project Construction Noise Levels*.



Source(s): Urban Crossroads (05-04-2018)

Figure 4.11-2

NOT TO SCALE

CONSTRUCTION NOISE RECEIVER LOCATIONS

Table 4.11-7 Project Construction Noise Levels

Receiver Location	Unmitigated Construction Noise Levels (dBA Leq)			Threshold Exceeded?	
	Highest Daytime Activity Noise Levels	Nighttime Concrete Pour Activity Noise Levels	Threshold	Highest Daytime Activity	Nighttime Concrete Pour Activity
R1	50.2	41.0	65	No	No
R2	47.5	38.8	65	No	No
R3	45.6	37.2	65	No	No
R4	46.9	37.6	65	No	No
R5	50.0	38.4	65	No	No
R6	45.0	34.5	65	No	No
R7	39.6	29.4	65	No	No

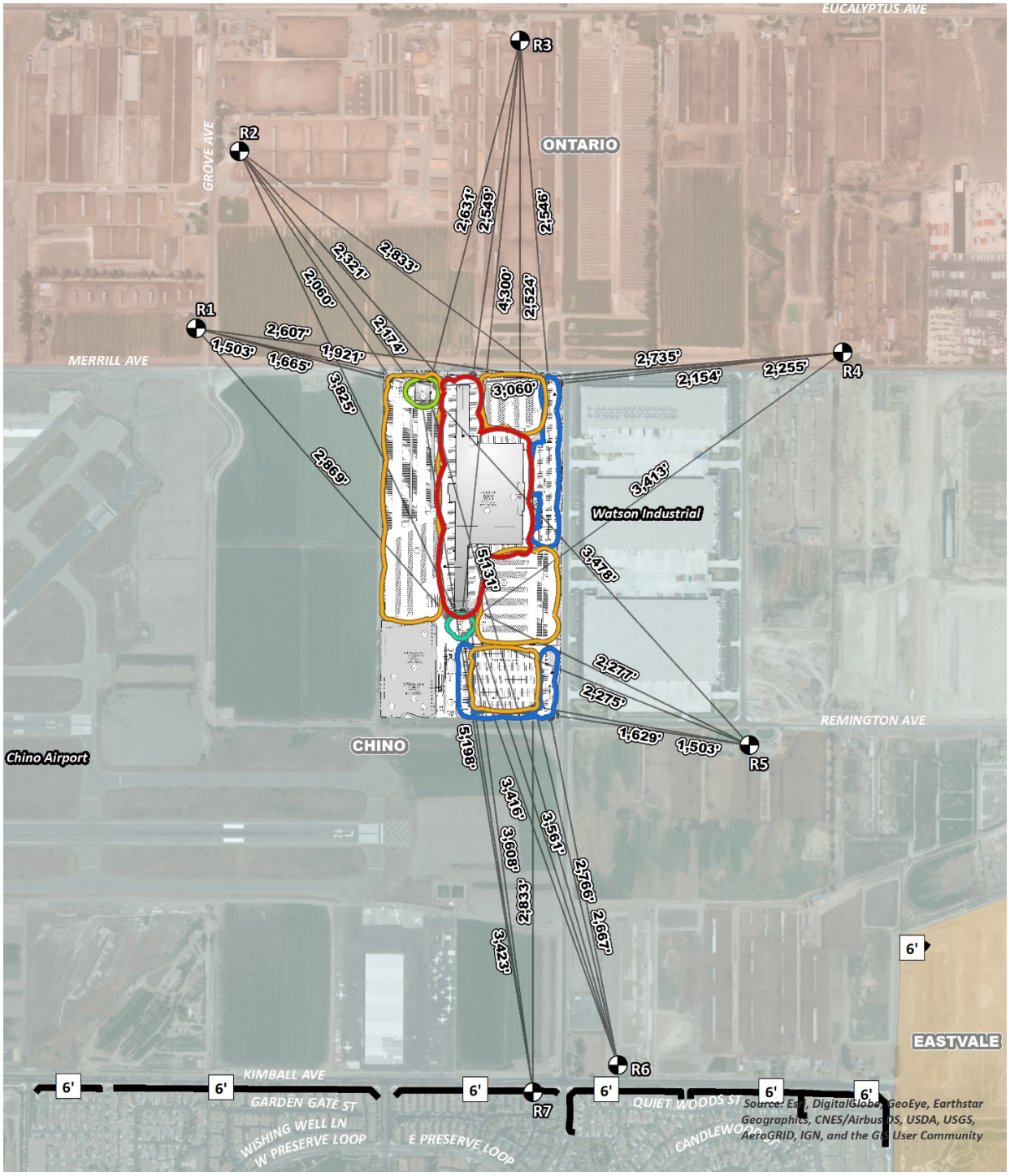
Source: (Urban Crossroads, 2018d, Table 10-9)

As shown in Table 4.11-7, the Project's peak construction activities would not exceed the threshold of significance (i.e., 65 dBA L_{eq}) as sensitive receivers in the Project site vicinity would not be exposed to daytime construction noise levels in excess of 50.2 dBA L_{eq} or nighttime construction noise levels in excess of 41 dBA L_{eq}. Accordingly, the Project's construction noise impact would be less than significant under Thresholds "a" and "d."

B. Stationary Noise Impact Analysis

Stationary (on-site) noise sources associated with the Project's long-term operation are expected to include idling trucks, delivery truck and automobile parking, delivery truck backup alarms, roof-top air conditioning units, emergency generators, and cargo handling equipment. The Project also is expected to generate noise during the loading and unloading of delivery trailers on-site. The locations and types of stationary noise expected on the Project site during long-term operation are illustrated on Figure 4.11-3, *Operational Noise Sources and Receiver Locations*.

The Project's stationary, operational noise levels were calculated at seven (7) noise-sensitive receiver locations located in the immediate vicinity of the Project site that have the potential to be subjected to noise associated with typical on-site operations. The receiver locations for the stationary, operational noise analysis are illustrated on Figure 4.11-3. These seven locations are representative of all sensitive receivers located nearest the Project site. It is not necessary to study every single receiver location surrounding Project site because receivers located at similar distances from the Project site with similar ground elevations, orientation, and intervening physical conditions as the seven modeled receptor locations would experience the same or very similar noise effects as those disclosed herein. The Project's operational noise levels at the seven modeled receiver locations are summarized in Table 4.11-8, *Project Operational Noise Levels*.



Source(s): Urban Crossroads (05-04-2018)

Figure 4.11-3

NOT TO SCALE

OPERATIONAL NOISE SOURCES AND RECEIVER LOCATIONS

Table 4.11-8 Project Operational Noise Levels

Receiver Location	City	Noise Level at Receiver Locations (dBA)						Threshold Exceeded?	
		Leq (E. Avg.)	L50 (30 mins)	L25 (15 mins)	L8 (5 mins)	L2 (1 min)	Lmax (Anytime)	Daytime	Nighttime
Residential Noise Level Standards	**Chino**	**-**	**55**	**60**	**65**	**70**	**75**	**-**	**-**
		-	**50**	**55**	**60**	**65**	**70**	**-**	**-**
	Ontario	**65**	**-**	**65**	**-**	**-**	**85**	**-**	**-**
		45	**-**	**45**	**-**	**-**	**65**	**-**	**-**
R1	Ontario	42.9	37.2	43.4	48.4	50.9	51.7	No	No
R2	Ontario	42.8	38.6	43.6	47.5	50.5	52.0	No	No
R3	Ontario	41.5	37.5	42.3	46.2	49.2	50.8	No	No
R4	Ontario	41.1	37.3	42.0	45.6	48.5	50.2	No	No
R5	Chino	42.5	39.3	43.7	46.7	49.5	51.4	No	No
R6	Chino	38.5	35.2	39.6	42.7	45.6	47.5	No	No
R7	Chino	38.4	35.1	39.5	42.6	45.5	47.4	No	No

Source: (Urban Crossroads, 2018d, Table 9-3)

As shown in Table 4.11-8, none of the sensitive receiver locations near the Project site would be exposed to noise levels that exceed the applicable limits established by the Chino Municipal Code or the Ontario Municipal Code. Accordingly, the Project's operational noise impact would be less than significant under Threshold "a."

The Project's contribution to the existing noise environment during operation is summarized in Table 4.11-9, *Daytime Operational Noise Level Contributions*, and Table 4.11-10, *Nighttime Operational Noise Level Contributions*.

Table 4.11-9 Daytime Operational Noise Level 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 Contribution (dBA Leq)	Threshold Exceeded?
R1	42.9	L2	69.2	69.2	0.0	No
R2	42.8	L3	64.7	64.7	0.0	No
R3	41.5	L3	64.7	64.7	0.0	No
R4	41.1	L4	69.2	69.2	0.0	No
R5	42.5	L8	58.7	58.8	0.1	No
R6	38.5	L10	74.3	74.3	0.0	No
R7	38.4	L10	74.3	74.3	0.0	No

Source: (Urban Crossroads, 2018d, Table 9-4)

Table 4.11-10 Nighttime Operational Noise Level 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 Contribution (dBA Leq)	Threshold Exceeded?
R1	42.9	L2	66.9	66.9	0.0	No
R2	42.8	L3	62.7	62.7	0.0	No
R3	41.5	L3	62.7	62.7	0.0	No
R4	41.1	L4	65.2	65.2	0.0	No
R5	42.5	L8	54.2	54.5	0.3	No
R6	38.5	L10	72.2	72.2	0.0	No
R7	38.4	L10	72.2	72.2	0.0	No

Source: (Urban Crossroads, 2018d, Table 9-5)

When evaluated against the context of existing ambient noise levels in the Project area, the Project's operational noise would not be perceptible at noise-sensitive-receiver locations during daytime or nighttime hours. As shown in Table 4.11-9 and Table 4.11-10, operational activities on the Project site would increase ambient noise levels at noise-sensitive-receiver locations by no more than 0.1 dBA L_{eq} during daytime hours and by no more than 0.3 dBA L_{eq} during nighttime hours, respectively. (As described earlier in this Subsection, noise level increases of 1 dBA can only be perceived by the human ear in a controlled, laboratory environment.) The Project's daytime and nighttime contribution to the local ambient noise environment would not exceed the applicable significance thresholds and, therefore, would not represent a substantial permanent increase in ambient noise levels in the Project site vicinity above levels existing without the Project. The Project would result in a less-than-significant impact under Threshold "c"

C. Traffic-Related Noise Impact Analysis

To evaluate off-site noise increases that could result from Project-related traffic, noise levels were modeled for the following scenarios:

- Existing plus Project
- Opening Year (2020)
- Horizon Year (2040)

The Existing plus Project (E+P) analysis determines the Project's traffic noise impacts under the theoretical scenario where traffic from the Project is added to existing conditions. The E+P scenario is presented to disclose direct impacts to the existing environment as required by CEQA. In the case of the proposed Project, the estimated time period between the commencement of the Project's CEQA review (2017) and Project buildout (2020) is three years. During this time period, traffic conditions are not static – other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real-world conditions when the proposed Project is constructed and becomes operational.

The Opening Year (2020) analysis provides an evaluation of traffic noise conditions at the time the Project becomes operational. The Opening Year analyses are utilized to determine the Project's potential to cumulatively contribute to near-term noise impacts upon consideration of existing traffic + ambient growth + Project traffic + traffic from cumulative development projects. As described in EIR Section 3.0, *Project Description*, although operations at the Project site are expected to begin in 2020, the Project is not expected to reach peak operations until several years after opening. Regardless, to provide a conservative, "worst-case" analysis, the Opening Year (2020) traffic noise analysis assumes the Project operates at peak capacity from its opening.

The Horizon Year (2040) analysis determines the potential for the Project to contribute to long-term noise impacts after the addition of growth expected from build out of local general plans and local cumulative development projects.

Refer to EIR Subsection 4.14, *Transportation and Traffic*, for information about the distribution pattern of Project-related traffic. The trip distribution for the proposed Project was developed based on anticipated passenger car and truck travel patterns to-and-from the Project site. The traffic distribution pattern for Project-related truck trips and passenger car trips are shown in EIR Subsection 4.14 and discussed in more detail in the Project's technical Traffic Impact Analysis included as *Technical Appendix K* to this EIR.

1. Existing plus Project Conditions

As summarized in Table 4.11-11, *Existing plus Project Traffic Noise Levels*, the Project's traffic noise would not exceed the applicable significance thresholds under the E+P scenario; therefore, the Project's contribution of off-site traffic noise would not result in a substantial, permanent increase in ambient noise levels. Impacts would be less than significant under Threshold "c."

2. Opening Year Conditions

As summarized in Table 4.11-12, *Opening Year (2020) Traffic Noise Levels*, the Project's traffic noise would not exceed the applicable significance thresholds in the Opening Year (2020) scenario; therefore, the Project's contribution of off-site traffic noise would not result in a substantial, permanent increase in ambient noise levels. Impacts would be less than significant under Threshold "c."

3. Horizon Year

Table 4.11-13 and Table 4.11-14 summarize noise conditions along study area roadway segments under the Horizon Year (2040) scenario with and without the planned extension of Limonite Avenue over the Cucamonga Channel (to the east of the Project site). As shown in Table 4.11-13 and Table 4.11-14, the Project's traffic noise would not exceed the applicable significance thresholds under either Horizon Year analysis scenario. Therefore, the Project's contribution of off-site traffic noise would not result in a substantial, permanent increase in ambient noise levels under Horizon Year conditions and would be less than significant.

Table 4.11-11 Existing plus Project Traffic Noise Levels

ID	Road	Segment	Adjacent Planned (Existing) Land Use	CNEL at Adjacent Land Use (dBA)			Noise-Sensitive Land Use?	Threshold Exceeded?
				No Project	With Project	Project Addition		
1	Euclid Av.	s/o SR-60	Commercial	78.5	78.6	0.1	No	No
2	Euclid Av.	s/o Walnut Av.	Residential	77.8	77.9	0.1	Yes	No
3	Euclid Av.	s/o Riverside Dr.	Residential	76.3	76.4	0.1	Yes	No
4	Euclid Av.	s/o Chino Av.	Residential	76.8	77.0	0.2	Yes	No
5	Euclid Av.	s/o Schaefer Av.	Commercial	76.3	76.5	0.2	No	No
6	Euclid Av.	s/o Edison Av.	Business Park	76.2	76.5	0.3	No	No
7	Euclid Av.	s/o Eucalyptus Av.	Residential	76.6	76.8	0.2	Yes	No
8	Euclid Av.	s/o Merrill Av.	Public	76.5	76.7	0.2	No	No
9	Euclid Av.	s/o Kimball Av.	Office Commercial	74.4	74.5	0.1	No	No
10	Euclid Av.	s/o Bickmore Av.	Regional Commercial	74.2	74.3	0.1	No	No
11	Euclid Av.	s/o Pine Av.	Urban Reserve	78.0	78.0	0.0	Yes	No
12	Flight Av.	n/o Merrill Av.	Business Park (Ag.)	n/a	n/a	n/a	n/a	n/a
13	Hellman Av.	s/o Kimball Av.	Residential	75.0	75.0	0.0	Yes	No
14	Hellman Av.	s/o Pine Av.	Residential	74.2	74.2	0.0	Yes	No
15	Archibald Av.	n/o Riverside Dr.	Residential	76.5	76.8	0.3	Yes	No
16	Archibald Av.	s/o Riverside Dr.	Residential	77.2	77.5	0.3	Yes	No
17	Archibald Av.	s/o Chino Av.	Residential	76.0	76.4	0.4	Yes	No
18	Archibald Av.	s/o Schaefer Av.	Residential	76.1	76.5	0.4	Yes	No
19	Archibald Av.	s/o Ontario Ranch Rd.	Residential	77.0	77.3	0.3	Yes	No
20	Archibald Av.	s/o Eucalyptus Av.	Residential	77.0	77.3	0.3	Yes	No
21	Archibald Av.	s/o Merrill Av.	Residential	77.3	77.6	0.3	Yes	No
22	Archibald Av.	s/o Limonite Av.	Commercial	75.7	75.8	0.1	No	No
23	Merrill Av.	e/o Euclid Av.	Commercial	73.7	75.0	1.3	No	No
24	Merrill Av.	e/o Bon View Av.	Public	73.5	74.8	1.3	No	No
25	Merrill Av.	e/o Flight Av.	Business Park	73.9	75.5	1.6	No	No
26	Merrill Av.	e/o Hellman Av.	Industrial	74.0	75.6	1.6	No	No
27	Kimball Av.	w/o Euclid Av.	Urban Reserve	77.6	77.7	0.1	Yes	No
28	Kimball Av.	e/o Euclid Av.	Public	77.4	77.4	0.0	No	No
29	Kimball Av.	e/o Rincon Meadows Av.	Residential	77.1	77.1	0.0	Yes	No
30	Kimball Av.	e/o Mill Creek Av.	Residential	76.6	76.6	0.0	Yes	No
31	Kimball Av.	e/o Main St.	Residential	76.1	76.2	0.1	Yes	No
32	Kimball Av.	e/o Flight Av.	Residential	76.0	76.0	0.0	Yes	No
33	Kimball Av.	e/o Meadow Valley Av.	Residential	75.9	75.9	0.0	Yes	No
34	Limonite Av.	e/o Hellman Av.	Industrial	n/a	n/a	n/a	n/a	n/a
35	Limonite Av.	e/o Archibald Av.	Commercial	74.2	74.5	0.3	No	No
36	Limonite Av.	e/o Harrison Av.	Residential	74.7	75.0	0.3	Yes	No
37	Limonite Av.	e/o Sumner Av.	Residential	75.0	75.3	0.3	Yes	No
38	Limonite Av.	e/o Scholar Wy.	Residential	75.6	75.9	0.3	Yes	No
39	Limonite Av.	e/o Hamner Av.	Commercial	75.6	75.8	0.2	No	No

Source: (Urban Crossroads, 2018d, Table 7-9)

Table 4.11-12 Opening Year (2020) Traffic Noise Levels

ID	Road	Segment	Adjacent Planned (Existing) Land Use	CNEL at Adjacent Land Use (dBA)			Noise-Sensitive Land Use?	Threshold Exceeded?
				No Project	With Project	Project Addition		
1	Euclid Av.	s/o SR-60	Commercial	80.3	80.4	0.1	No	No
2	Euclid Av.	s/o Walnut Av.	Residential	79.8	80.0	0.2	Yes	No
3	Euclid Av.	s/o Riverside Dr.	Residential	78.6	78.7	0.1	Yes	No
4	Euclid Av.	s/o Chino Av.	Residential	79.0	79.1	0.1	Yes	No
5	Euclid Av.	s/o Schaefer Av.	Commercial	78.9	79.0	0.1	No	No
6	Euclid Av.	s/o Edison Av.	Business Park	78.9	79.0	0.1	No	No
7	Euclid Av.	s/o Eucalyptus Av.	Residential	79.2	79.4	0.2	Yes	No
8	Euclid Av.	s/o Merrill Av.	Public	78.6	78.8	0.2	No	No
9	Euclid Av.	s/o Kimball Av.	Office Commercial	76.8	76.9	0.1	No	No
10	Euclid Av.	s/o Bickmore Av.	Regional Commercial	76.9	77.0	0.1	No	No
11	Euclid Av.	s/o Pine Av.	Urban Reserve	79.4	79.5	0.1	Yes	No
12	Flight Av.	n/o Merrill Av.	Business Park (Ag.)	n/a	n/a	n/a	n/a	n/a
13	Hellman Av.	s/o Kimball Av.	Residential	74.6	74.6	0.0	Yes	No
14	Hellman Av.	s/o Pine Av.	Residential	75.0	75.0	0.0	Yes	No
15	Archibald Av.	n/o Riverside Dr.	Residential	78.8	79.0	0.2	Yes	No
16	Archibald Av.	s/o Riverside Dr.	Residential	79.4	79.5	0.1	Yes	No
17	Archibald Av.	s/o Chino Av.	Residential	78.8	79.0	0.2	Yes	No
18	Archibald Av.	s/o Schaefer Av.	Residential	78.9	79.1	0.2	Yes	No
19	Archibald Av.	s/o Ontario Ranch Rd.	Residential	79.9	80.1	0.2	Yes	No
20	Archibald Av.	s/o Eucalyptus Av.	Residential	79.9	80.1	0.2	Yes	No
21	Archibald Av.	s/o Merrill Av.	Residential	79.5	79.7	0.2	Yes	No
22	Archibald Av.	s/o Limonite Av.	Commercial	78.1	78.1	0.0	No	No
23	Merrill Av.	e/o Euclid Av.	Commercial	78.6	79.1	0.5	No	No
24	Merrill Av.	e/o Bon View Av.	Public	78.5	79.0	0.5	No	No
25	Merrill Av.	e/o Flight Av.	Business Park	79.0	79.6	0.6	No	No
26	Merrill Av.	e/o Hellman Av.	Industrial	78.7	79.4	0.7	No	No
27	Kimball Av.	w/o Euclid Av.	Urban Reserve	79.7	79.8	0.1	Yes	No
28	Kimball Av.	e/o Euclid Av.	Public	78.9	78.9	0.0	No	No
29	Kimball Av.	e/o Rincon Meadows Av.	Residential	78.3	78.3	0.0	Yes	No
30	Kimball Av.	e/o Mill Creek Av.	Residential	78.3	78.3	0.0	Yes	No
31	Kimball Av.	e/o Main St.	Residential	77.6	77.6	0.0	Yes	No
32	Kimball Av.	e/o Flight Av.	Residential	78.7	78.7	0.0	Yes	No
33	Kimball Av.	e/o Meadow Valley Av.	Residential	75.8	75.9	0.1	Yes	No
34	Limonite Av.	e/o Hellman Av.	Industrial	n/a	n/a	n/a	n/a	n/a
35	Limonite Av.	e/o Archibald Av.	Commercial	77.0	77.2	0.2	No	No
36	Limonite Av.	e/o Harrison Av.	Residential	77.7	77.9	0.2	Yes	No
37	Limonite Av.	e/o Sumner Av.	Residential	78.0	78.1	0.1	Yes	No
38	Limonite Av.	e/o Scholar Wy.	Residential	78.3	78.4	0.1	Yes	No
39	Limonite Av.	e/o Hamner Av.	Commercial	77.9	78.0	0.1	No	No

Source: (Urban Crossroads, 2018d, Table 7-10)

Table 4.11-13 Horizon Year (2040) Traffic Noise Levels – Without Limonite Extension

ID	Road	Segment	Adjacent Planned (Existing) Land Use	CNEL at Adjacent Land Use (dBA)[1]			Noise-Sensitive Land Use?	Threshold Exceeded?
				No Project	With Project	Project Addition		
1	Euclid Av.	s/o SR-60	Commercial	81.1	81.2	0.1	No	No
2	Euclid Av.	s/o Walnut Av.	Residential	81.0	81.0	0.0	Yes	No
3	Euclid Av.	s/o Riverside Dr.	Residential	80.1	80.2	0.1	Yes	No
4	Euclid Av.	s/o Chino Av.	Residential	80.4	80.5	0.1	Yes	No
5	Euclid Av.	s/o Schaefer Av.	Commercial	80.4	80.5	0.1	No	No
6	Euclid Av.	s/o Edison Av.	Business Park	79.4	79.5	0.1	No	No
7	Euclid Av.	s/o Eucalyptus Av.	Residential	79.6	79.8	0.2	Yes	No
8	Euclid Av.	s/o Merrill Av.	Public	79.9	80.0	0.1	No	No
9	Euclid Av.	s/o Kimball Av.	Office Commercial	78.3	78.4	0.1	No	No
10	Euclid Av.	s/o Bickmore Av.	Regional Commercial	78.3	78.3	0.0	No	No
11	Euclid Av.	s/o Pine Av.	Urban Reserve	80.2	80.3	0.1	Yes	No
12	Flight Av.	n/o Merrill Av.	Business Park (Ag.)	67.6	67.6	0.0	No	No
13	Hellman Av.	s/o Kimball Av.	Residential	76.5	76.5	0.0	Yes	No
14	Hellman Av.	s/o Pine Av.	Residential	76.0	76.0	0.0	Yes	No
15	Archibald Av.	n/o Riverside Dr.	Residential	78.3	78.4	0.1	Yes	No
16	Archibald Av.	s/o Riverside Dr.	Residential	79.8	80.0	0.2	Yes	No
17	Archibald Av.	s/o Chino Av.	Residential	79.7	79.9	0.2	Yes	No
18	Archibald Av.	s/o Schaefer Av.	Residential	79.4	79.6	0.2	Yes	No
19	Archibald Av.	s/o Ontario Ranch Rd.	Residential	80.3	80.4	0.1	Yes	No
20	Archibald Av.	s/o Eucalyptus Av.	Residential	80.4	80.5	0.1	Yes	No
21	Archibald Av.	s/o Merrill Av.	Residential	79.8	79.9	0.1	Yes	No
22	Archibald Av.	s/o Limonite Av.	Commercial	80.2	80.2	0.0	No	No
23	Merrill Av.	e/o Euclid Av.	Commercial	79.8	80.2	0.4	No	No
24	Merrill Av.	e/o Bon View Av.	Public	78.5	78.9	0.4	No	No
25	Merrill Av.	e/o Flight Av.	Business Park	80.9	81.3	0.4	No	No
26	Merrill Av.	e/o Hellman Av.	Industrial	80.9	81.3	0.4	No	No
27	Kimball Av.	w/o Euclid Av.	Urban Reserve	78.7	78.8	0.1	Yes	No
28	Kimball Av.	e/o Euclid Av.	Public	79.3	79.3	0.0	No	No
29	Kimball Av.	e/o Rincon Meadows Av.	Residential	79.2	79.2	0.0	Yes	No
30	Kimball Av.	e/o Mill Creek Av.	Residential	79.5	79.5	0.0	Yes	No
31	Kimball Av.	e/o Main St.	Residential	81.1	81.1	0.0	Yes	No
32	Kimball Av.	e/o Flight Av.	Residential	79.1	79.1	0.0	Yes	No
33	Kimball Av.	e/o Meadow Valley Av.	Residential	77.2	77.2	0.0	Yes	No
34	Limonite Av.	e/o Hellman Av.	Industrial	72.7	72.7	0.0	No	No
35	Limonite Av.	e/o Archibald Av.	Commercial	78.8	78.9	0.1	No	No
36	Limonite Av.	e/o Harrison Av.	Residential	79.1	79.2	0.1	Yes	No
37	Limonite Av.	e/o Sumner Av.	Residential	79.0	79.2	0.2	Yes	No
38	Limonite Av.	e/o Scholar Wy.	Residential	79.1	79.2	0.1	Yes	No
39	Limonite Av.	e/o Hamner Av.	Commercial	78.5	78.7	0.2	No	No

[1]The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
Source: (Urban Crossroads, 2018d, Table 7-11)

Table 4.11-14 Horizon Year (2040) Traffic Noise Levels – With Limonite Extension

ID	Road	Segment	Adjacent Planned (Existing) Land Use	CNEL at Adjacent Land Use (dBA)[1]			Noise-Sensitive Land Use?	Threshold Exceeded?
				No Project	With Project	Project Addition		
1	Euclid Av.	s/o SR-60	Commercial	81.8	81.9	0.1	No	No
2	Euclid Av.	s/o Walnut Av.	Residential	80.9	81.0	0.1	Yes	No
3	Euclid Av.	s/o Riverside Dr.	Residential	80.1	80.2	0.1	Yes	No
4	Euclid Av.	s/o Chino Av.	Residential	80.4	80.5	0.1	Yes	No
5	Euclid Av.	s/o Schaefer Av.	Commercial	80.4	80.5	0.1	No	No
6	Euclid Av.	s/o Edison Av.	Business Park	79.4	79.5	0.1	No	No
7	Euclid Av.	s/o Eucalyptus Av.	Residential	79.6	79.8	0.2	Yes	No
8	Euclid Av.	s/o Merrill Av.	Public	79.9	80.0	0.1	No	No
9	Euclid Av.	s/o Kimball Av.	Office Commercial	78.3	78.4	0.1	No	No
10	Euclid Av.	s/o Bickmore Av.	Regional Commercial	78.3	78.3	0.0	No	No
11	Euclid Av.	s/o Pine Av.	Urban Reserve	80.2	80.3	0.1	Yes	No
12	Flight Av.	n/o Merrill Av.	Business Park (Ag.)	67.6	67.6	0.0	No	No
13	Hellman Av.	s/o Kimball Av.	Residential	77.7	77.7	0.0	Yes	No
14	Hellman Av.	s/o Pine Av.	Residential	76.0	76.0	0.0	Yes	No
15	Archibald Av.	n/o Riverside Dr.	Residential	78.3	78.4	0.1	Yes	No
16	Archibald Av.	s/o Riverside Dr.	Residential	79.8	80.0	0.2	Yes	No
17	Archibald Av.	s/o Chino Av.	Residential	79.7	79.9	0.2	Yes	No
18	Archibald Av.	s/o Schaefer Av.	Residential	79.4	79.6	0.2	Yes	No
19	Archibald Av.	s/o Ontario Ranch Rd.	Residential	80.3	80.4	0.1	Yes	No
20	Archibald Av.	s/o Eucalyptus Av.	Residential	80.4	80.5	0.1	Yes	No
21	Archibald Av.	s/o Merrill Av.	Residential	80.4	80.6	0.2	Yes	No
22	Archibald Av.	s/o Limonite Av.	Commercial	79.4	79.4	0.0	No	No
23	Merrill Av.	e/o Euclid Av.	Commercial	79.8	80.2	0.4	No	No
24	Merrill Av.	e/o Bon View Av.	Public	78.5	78.9	0.4	No	No
25	Merrill Av.	e/o Flight Av.	Business Park	79.3	79.8	0.5	No	No
26	Merrill Av.	e/o Hellman Av.	Industrial	79.0	79.6	0.6	No	No
27	Kimball Av.	w/o Euclid Av.	Urban Reserve	78.7	78.8	0.1	Yes	No
28	Kimball Av.	e/o Euclid Av.	Public	79.3	79.3	0.0	No	No
29	Kimball Av.	e/o Rincon Meadows Av.	Residential	79.4	79.4	0.0	Yes	No
30	Kimball Av.	e/o Mill Creek Av.	Residential	80.2	80.2	0.0	Yes	No
31	Kimball Av.	e/o Main St.	Residential	81.6	81.6	0.0	Yes	No
32	Kimball Av.	e/o Flight Av.	Residential	78.8	78.9	0.1	Yes	No
33	Kimball Av.	e/o Meadow Valley Av.	Residential	78.8	78.8	0.0	Yes	No
34	Limonite Av.	e/o Hellman Av.	Industrial	76.7	76.7	0.0	No	No
35	Limonite Av.	e/o Archibald Av.	Commercial	78.8	78.9	0.1	No	No
36	Limonite Av.	e/o Harrison Av.	Residential	79.1	79.2	0.1	Yes	No
37	Limonite Av.	e/o Sumner Av.	Residential	79.0	79.2	0.2	Yes	No
38	Limonite Av.	e/o Scholar Wy.	Residential	79.1	79.2	0.1	Yes	No
39	Limonite Av.	e/o Hamner Av.	Commercial	78.5	78.7	0.2	No	No

[1]The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
Source: (Urban Crossroads, 2018d, Table 7-12)

Threshold b: Would the Project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

A. Construction Analysis

Construction activities on the Project site would utilize construction equipment that has the potential to generate vibration. Project construction-related vibration levels were calculated at the same seven (7) receiver locations that were used in the construction noise analysis (refer to Figure 4.11-2). Table 4.11-15, *Project Construction Vibration Levels*, summarizes Project construction vibration levels at the modeled receiver locations. As shown in Table 4.11-15 all receiver locations in the vicinity of the Project site would be exposed to vibration levels that fall below the applicable significance threshold (i.e., 0.05 in/sec RMS). Accordingly, the Project would not expose people to or generate excessive groundborne vibration or groundborne noise levels during construction and a less-than-significant impact would occur.

Table 4.11-15 Project Construction Vibration Levels

Receiver Location	Distance to Closest Const. Activity (Feet)	Receiver PPV[1] Levels (in/sec)					RMS[2] Velocity Levels (in/sec)	Threshold Exceeded?
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Peak Vibration		
R1	1,467'	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	No
R2	2,009'	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	No
R3	2,503'	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	No
R4	2,148'	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	No
R5	1,501'	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	No
R6	2,686'	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	No
R7	2,805'	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	No

[1]PPV = peak particle velocity
[2]RMS = root mean sqaure
Source: (Urban Crossroads, 2018d, Table 10-10)

B. Operational Analysis

Under long-term conditions, the operational activities of the proposed Project would not include or require equipment, facilities, or activities that would result in perceptible ground-borne vibration. Trucks would travel to and from the Project site on surrounding roadways; however, vibration and groundborne noise levels for heavy trucks operating at the posted speed limits on smooth, paved surfaces – as is expected on the Project site and surrounding roadways – are typically below the 0.05 in/sec RMS significance threshold. (Urban Crossroads, 2018d, pp. 82-83) Accordingly, the Project would not expose people to or generate excessive groundborne vibration or groundborne noise levels during long-term operation. Impacts are less than significant.

Threshold e:	***For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

The southwestern corner of the Project site is located within the 65 dBA CNEL contour of the Chino Airport. The portion of the Project site located within the 65 dBA CNEL contour will not contain any habitable structures; this area would be occupied by a water quality/detention basin. The remaining portions of the Project site, including all portions of the Project that would contain structures that would support Project employees, are located outside the 65 dBA CNEL contour. The land uses proposed by the Project are compatible with noise levels 65 dBA CNEL and below; therefore, the Project would not expose people working on the Project site to excessive noise levels. (Urban Crossroads, 2018d, pp. 23-25) Impacts would be less than significant.

Threshold f:	***For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the project area to excessive noise levels?***

The Project site is not located near any private airfields or airstrips. Therefore, the Project has no potential to result in a safety hazard for people living or residing in the Project area. No impact would occur.

4.11.7 Cumulative Impact Analysis

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the City of Chino, the City of Ontario, and surrounding areas.

A. Construction-Related Noise

There are no known active or pending construction projects abutting the Project site that would overlap with the Project's proposed construction schedule. There are active construction projects approximately 0.25-mile east of the Project site; however, due to the distance between the Project site and these other construction projects and intervening development (i.e., three large industrial buildings), that would attenuate construction noise, the Project would not contribute substantial construction noise to the area. Accordingly, there is no potential for the Project to contribute to the exposure of sensitive receptors to substantial temporary increases in ambient noise levels.

B. Stationary Noise

The analysis presented for Threshold "c" addresses the Project's contribution of noise to existing cumulative noise sources (i.e., ambient noise) in the Project area. As previously shown in Table 4.11-9 and Table 4.11-10, the Project's noise contribution would not be perceptible to noise-sensitive receptors in the Project area during daytime or nighttime hours. The Project's permanent stationary noise impacts would not be cumulatively-considerable.

C. *Traffic Noise*

The analysis presented for Threshold "d" evaluates the Project's traffic noise contribution along study area roadways with consideration of near-term (Year 2020) and long-term (Year 2040) cumulative development. As summarized in Table 4.11-12 through Table 4.11-14, the Project's traffic noise contributions along study area roadways would not exceed applicable significance thresholds and, therefore, would not be cumulatively considerable under near- or long-term cumulative conditions.

D. *Groundborne Vibration and Noise*

During construction, the Project's peak vibration impacts would occur during the grading phase when large pieces of equipment, like bulldozers, are operating on-site. (During the non-grading phases of Project construction, when smaller pieces of equipment are used on-site, the Project's vibration would be minimal.) Vibration effects diminish rapidly from the source; therefore, the only reasonable sources of cumulative vibration in the vicinity of the Project site could occur on properties abutting the site. There are no known active or pending construction projects abutting the Project site that would overlap with the Project's proposed construction schedule. Accordingly, there is no potential for the Project to contribute to the exposure of persons to substantial temporary groundborne vibration or noise.

Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project site. Trucks would travel to and from the Project site along local roadways; however, vibration levels for heavy trucks operating at the posted speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not cumulatively contribute to the exposure of persons to excessive groundborne vibration or noise levels during long-term operation.

E. *Airport Noise*

The Project would not involve the construction, operation, or use of any public airports or public use airports. There are no conditions associated with implementation of the Project that would contribute airport noise or exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively contribute to impacts associated with noise from a public airport, public use airport, or private airstrip. Additionally, the Project site and the immediately surrounding area are not subject to substantial airport- or air traffic-related noise. Accordingly, there is no potential for cumulative development to expose persons residing or working in the Project area to excessive airport-related noise levels.

4.11.8 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would generate short-term construction and long-term operational noise but would not generate noise levels during construction and/or operation that exceed the standards established by the City of Chino and the City of Ontario Municipal Codes.

Threshold b: Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.

Threshold c: Less-than-Significant Impact. Noise generated during operation of the Project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the Project site.

Threshold d: Less-than-Significant Impact. The Project would not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Threshold e: Less-than-Significant Impact. The Project site is not located within an area exposed to high levels of noise from the Chino Airport. As such, the Project would not expose people to excessive noise levels associated with a public airport or public use airport.

Threshold f: No Impact. The Project site is not located near any private airfields or airstrips.

4.11.9 Mitigation

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

4.12 POPULATION AND HOUSING

The following analysis discloses existing population and housing data for the City of Chino and assesses the potential for the Project to result in indirect impacts on population and housing. The analysis in this Subsection is based, in part, on information contained within the City of Chino General Plan, The Preserve Specific Plan, and population and housing projections from the Southern California Association of Governments (SCAG). All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.12.1 EXISTING CONDITIONS

Under existing conditions, the Project site contains two detached single-family residences, an active dairy farm, and field crops. The Project site is located within an area of Chino known as "The Preserve." Over the last 15 years, The Preserve has been transitioning from agricultural and rural residential land uses to an urbanized mixture of industrial and master-planned residential land uses. (Commercial land uses are ultimately planned within The Preserve as well.) The Chino Airport lies south and west of the Project site, and large warehouse buildings that are part of the first phase of the Watson Industrial Park Chino project are located immediately east of the Project site. Large warehouse buildings that will collectively contain up to 3,827,000 s.f. of industrial building space and comprise the second phase of the Watson Industrial Park Chino project are under construction approximately 0.25-mile east of the Project site. Land to the north of the Project site (located within the City of Ontario) is occupied by agricultural uses but is planned by the City of Ontario General Plan for long-term development with industrial uses.

A. Demographic Projections

1. Population

Based on population data summarized in the City of Chino General Plan Housing Element, the City of Chino's population was 77,983 in 2010. This value reflected a population increase of 16.1% as compared to the year 2000. (Chino, 2013b, Table 2) By the end of 2016, the total population in the City of Chino was 85,934 (SCAG, 2017b, p. 3). By year 2020, the population of the City of Chino is expected to grow to approximately 88,800 persons and, by the year 2035, Chino's population is projected to reach 107,200 persons (Chino, 2013b, Table 12).

2. Housing

The City of Chino contained 20,772 dwelling units in 2010 (Chino, 2013b, p. 10). By 2014, the number of dwelling units in the City of Chino had grown to 23,808 (SCAG, 2017b, p. 16). The housing stock in the City of Chino is expected to continue growing, with a projected 24,600 dwelling units by the year 2020 and 29,200 dwelling units by the year 2035, respectively (Chino, 2013b, Table 12).

3. Employment

The City of Chino's employment market contained 44,468 jobs in 2015 (SCAG, 2017b, p. 24). By the year 2020, the employment market in the City of Chino is expected to grow to approximately 53,500 jobs and, by the year 2035, the employment market in the City of Chino is projected to increase to approximately 67,700

jobs (Chino, 2013b, Table 12). According to data published by the United States Census Bureau in 2017, approximately 89% of Chino residents commute outside of Chino to work (SCAG, 2017b, p. 21).

4.12.2 Basis for Determining Significance

The Project would result in a significant impact associated with population and housing if the Project or any Project-related component would:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse environmental effects that could result from the introduction of new population or the construction of new housing to an area. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold.

4.12.3 Impact Analysis

Threshold a:	***Would the Project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

The Project would develop the subject property as a parcel sorting and distribution center. The Project would employ construction workers in various trades over the estimated 26-month construction phase and is expected to generate more than 500 permanent jobs at full buildout, including drivers, package handlers, clerks, technicians, managers, and contractors. It is anticipated that the employment base for both the construction and operational phases of the Project would come from the existing population in the Inland Empire, which comprises western Riverside County and southwestern San Bernardino County. According to the Bureau of Labor Statistics, in July 2018, the Riverside-San Bernardino-Ontario region's civilian labor force exceeded 2,000,000 persons with more than 1,900,000 people employed and an unemployment rate of 4.6% (or 93,458 persons) (BLS, 2018). Accordingly, the Project region already contains an ample supply of potential employees under existing conditions and the Project's labor demand is not expected to draw substantial numbers of new residents to the area. Furthermore, approximately 89% of City of Chino residents commute outside of the City for work (SCAG, 2017b, p. 21), with more homes currently under construction within The Preserve area; the Project would provide job opportunities closer to home for existing and future Chino residents. Based on the foregoing, the Project is not expected to be a catalyst for any substantial, direct, unplanned population increase.

There are no components of the Project that would remove obstacles to development in the local area (and result in indirect unplanned population growth) because the surrounding area is developed or planned to be developed with urbanized land uses. The Project would install new/expanded infrastructure; however, this infrastructure would either be master-planned facilities (meaning they would be installed with or without the Project) or would be private facilities for the sole use of the Project (meaning they would not be available for general public use). Accordingly, no significant indirect impacts associated with population growth would result from any Project-related improvements because the Project and its required improvements would not induce substantial growth on surrounding properties.

Based on the foregoing analysis, neither the Project nor any Project-related component would result in substantial, direct, or indirect unplanned population growth that would cause a significant direct or indirect impact to the environment. Impacts would be less than significant.

Threshold b:	***Would the Project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?***
Threshold c:	***Would the Project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?***

The Project site contains two non-conforming homes under existing conditions. The Project would remove both homes from the Project site, which would displace up to 7 people (based on the California Department of Finance's projection of 3.47 persons per household in Chino). There are over 1,000 vacant dwelling units in the City of Chino, according to figures compiled by the California Department of Finance, and several master planned residential communities are under construction in The Preserve area (south of Kimball Avenue) which will add more housing to the available stock within the City (CA Dept. of Finance, 2018). Accordingly, the housing supply in the City of Chino is adequate to accommodate persons that may be displaced from the Project site. Based on these considerations, implementation of the proposed Project would not displace a substantial number of existing housing or a substantial number of people and would not necessitate the construction of replacement housing elsewhere. A less-than-significant impact would occur.

4.12.4 Cumulative Impact Analysis

The proposed Project would not lead to substantial unplanned population growth or remove a substantial amount of housing that would require the construction of replacement housing elsewhere. As such, the Project has no potential to contribute to a cumulatively significant impact associated with the need to construct unplanned housing units. The Project would supply employment opportunities to people already residing in the area, and, although population growth resulting from the employment opportunities offered at the Project site is not expected, the surrounding area has ample supply of vacant housing and approved housing projects that are not yet constructed to accommodate any population growth in the area that could indirectly occur due to employment-demand generation from the Project and other developments in the area that will offer new employment opportunities. The creation of employment opportunities would benefit the City and the larger Inland Empire region by helping to achieve a better jobs-to-housing balance. As such, the Project's contribution to unplanned housing and population growth would be less than cumulatively considerable and a less-than-significant cumulative impact would occur.

4.12.5 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The jobs generated by the Project are expected to be filled by the existing labor force in the City and the larger Inland Empire area. Accordingly, the Project would not induce substantial unplanned population growth and impacts would be less than significant.

Thresholds b and c: Less-than-Significant Impact. The Project site contains two dwelling units under existing conditions, which would be removed as part of the Project. The removal of two dwelling units on the Project site would not displace substantial numbers of people or require the construction of replacement housing elsewhere. Impacts would be less than significant.

4.12.6 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.13 PUBLIC SERVICES

The analysis in this Subsection assesses the potential for the Project to cause substantial, adverse physical effects to the environment resulting from Project-related demands placed on public service providers. The analysis in this Subsection is based, primarily, on information contained in the City of Chino General Plan Public Facilities and Services Element (Chino, 2010a), City of Chino General Plan EIR Section 4.13, *Public Services* (Chino, 2010b), The Preserve Specific Plan EIR Section 5.11, *Public Services* (Chino, 2003), and the Chino Valley Fire District Master Plan (CVFD, 2012). A complete list of references utilized in this Subsection is contained in EIR Section 7.0, *References*.

4.13.1 EXISTING CONDITIONS

A. *Fire Protection/Emergency Medical Service*

Fire protection services to the Project site and surrounding area are provided by the Chino Valley Independent Fire District (CVIFD). The CVIFD serves the City of Chino, Chino Hills, and surrounding unincorporated areas, covering a service area of approximately 80 square miles. In 2017, the CVIFD had a resident service population of 170,845. The CVIFD resident service population is projected to grow to 200,000 by 2030. (CVFD, 2012, p. 1; CVFD, 2017, p. 2) In 2012, the CVFD prepared a Master Plan to guide future growth and development of CVFD facilities and service capabilities over the next 20 years.

CVFD is staffed by 140 personnel and provides emergency response services from seven (7) fire stations that support a combined 24 pieces of front-line emergency response equipment, including seven (7) paramedic fire engines, one (1) ladder truck, and four (4) paramedic squads. In 2017, the CVFD responded to 12,219 calls for service. (CVFD, 2017, p. 10) CVFD Station 63 is the primary station serving the Project area. Station 63 is located at 7550 Kimball Avenue, approximately 1.7 roadway miles southwest of the Project site. Station 63 houses a paramedic engine company staffed with three (3) personnel. Station 63 also houses a brush engine, a water tender, swift water rescue vehicle that transports two (2) swift water rescue boats, and an airport crash response unit. (CVFD, n.d.)

Funding for fire protection services and facilities comes from a variety of sources, including property taxes, grants, cost recovery/fines, and service fees. In addition, Chapter 3.45 of the Chino Municipal Code establishes a development impact fee (DIF) for development projects within The Preserve Specific Plan area. The City of Chino assesses this fee to help pay for fire protection needs and other public facilities and services. The amount of the fee is based on the number of dwelling units or square footage of non-residential development. (Chino, 2018)

B. *Police Service*

The Project site is served by the Chino Police Department (CPD). The CPD provides policing services throughout the City's 29.7-square mile area. The CPD operates from its headquarters at 5450 Guardian Way and is staffed by more than 150 full-time sworn officers and civilian staff. CPD officers are deployed over six rotating shifts to provide continuous policing services 24 hours per day, seven days per week. In 2016, the CPD received 96,034 calls for service. (CPD, 2017)

Funding for police services and facilities comes from a variety of sources, including property taxes, grants, cost recovery/fines, and service fees. In addition, Chapter 3.45 of the Chino Municipal Code establishes a DIF for development projects within The Preserve Specific Plan. The City of Chino assesses this fee to help pay for policing needs and other public facilities and services. The amount of the fee is based on the number of dwelling units or square footage of non-residential development. (Chino, 2018)

C. School Service

The Project site lies within the service area of the Chino Valley Unified School District (CVUSD). The CVUSD consists of 35 schools, including 20 elementary schools, six (6) junior high schools, and five (5) high schools. The nearest school is the Cal Aero Preserve Academy, located approximately 0.7 mile southwest of the Project site (Google Earth, 2018).

D. Parks and Recreational Facilities

At the time the Chino General Plan was adopted, the City of Chino had approximately 228 acres of formative, neighborhood, and community parks, including mini parks greater than ½-acre, and 117 acres of planned (yet to be constructed) parks. A 2,000-acre regional park, Prado Regional Park, is located in the southwestern part of the City and the approximately 14,000-acre Chino Hills State Park is located to the southwest of the City. (Chino, 2010a, pp. PR-5-PR-10).

E. Other Public Facilities and Services

Public library services are provided by the San Bernardino County Library network, which consists of 30 branch libraries. All branches are financed through dedicated property tax revenues. There is one branch library in the City of Chino, which was built in 1972 and renovated and expanded in 1997. The Chino Branch contains 11,000 square feet of buildings space; it serves the City of Chino residents and the City's sphere of influence. (Chino, 2010b, p. 4.12-21)

4.13.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of federal, state, and local environmental laws and related regulations related to public services that are applicable to the Project.

A. State Plans, Policies, and Regulations

1. Leroy F. Greene School Facilities Act of 1998 (Senate Bill [SB] 50)

Senate Bill 50 (SB 50) was enacted by the State Legislature in 1998. SB 50 amended prior California Government Code (CGC) Section 65995(a) to prohibit state or local agencies from imposing school impact mitigation fees, dedications, or other requirements in excess of those provided in the statute in connection with "any legislative or adjudicative act...by any state or local agency involving...the planning, use, or development of real property...."

The legislation also amended CGC Section 65996(b) to prohibit local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act

[involving] the planning, use or development of real property." Further, SB 50 established the base amount of allowable developer fees: $1.93 per square foot for residential construction and $0.31 per square foot for commercial. These base amounts are commonly called "Level 1 fees" and are the same caps that were in place at the time SB 50 was enacted. Level 1 fees are subject to inflation adjustment every two years.

For residential construction, school districts can impose fees that are higher than Level 1 fees. School districts can impose Level 2 fees, which are equal to 50% of land and construction costs if they: (1) prepare and adopt a school needs analysis for facilities; (2) are determined by the State Allocation Board to be eligible to impose these fees; and (3) meet at least two of the following four conditions:

- At least 30% of the district's students are on a multi-track year-round schedule.
- The district has placed on the ballot within the previous four years a local school bond that received at least 50% of the votes cast.
- The district has passed bonds equal to 30% of its bonding capacity.
- Or, at least 20% of the district's teaching stations are relocatable classrooms.

Additionally, if the State of California's bond funds are exhausted, a school district that is eligible to impose Level 2 fees is authorized to impose even higher fees. Commonly referred to as "Level 3 fees," these fees are equal to 100% of land and construction costs of new schools required as a result of new developments.

B. Local Plans, Policies, and Regulations

1. City of Chino Municipal Code

Pursuant to Chapter 3.45 of the Chino Municipal Code, Development Impact Fees (DIF) are established and imposed on each development project within the City of Chino to offset the cost of providing increased public services. The City of Chino assesses these fees to help pay for improvements to public services and public facilities including, but not limited to, fire and police protection. (Chino, 2018)

4.13.3 Basis for Determining Significance

The Project would result in a significant impact if the Project or any Project-related component would:

Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire protection;

b. Police protection;

c. Schools;

d. Parks; or

e. Other public facilities.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the potential adverse effects to the environment that could result from the demands the Project would place on existing public services and public service facilities. The CEQA Guidelines revisions of December 2018 did not alter the recommended wording of any of these thresholds. Public services demand in and of itself is not an environmental impact under CEQA unless such demand causes an adverse physical change to the environment.

4.13.4 Impact Analysis

Threshold a:	***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*** ***a) Fire protection?***

The existing residences and dairy farm on the Project site receive fire protection services from the CVFD via Station 63. Development of a parcel sorting/distribution center on the Project site has the potential to increase the frequency of fire protection calls to the site relative to existing conditions.

The Project would incorporate fire prevention and fire suppression design features to minimize the potential demand placed on the CVFD. The proposed buildings, with the exception of the security guard shacks, would be of concrete tilt-up construction. Concrete is non-flammable and concrete tilt-up buildings have a lower fire hazard risk than typical wood-frame construction. The Project also would install fire hydrants on-site – the CVFD reviewed the Project's site plan to ensure proper spacing of hydrants on-site to provide adequate coverage – and would provide paved primary and secondary emergency access to the Project site to support the CVFD in the event fire suppression activities are needed on-site. Lastly, all Project buildings, again with the exception of the security guard shacks, would install fire sprinklers in accordance with the California and Chino buildings codes. Based on its size and scale, the proposed sorting/distribution building would feature ESFR (Early Suppression, Fast Response) ceiling mounted fire sprinklers that exceed the fire protection of traditional sprinkler systems. ESFR high output, high volume systems are located in ceiling spaces as with conventional fire sprinkler systems, but they incorporate large, high-volume, high-pressure heads to provide the necessary fire protection for warehouse buildings that may contain high-piled storage. While most other sprinklers are intended to control the growth of a fire, an ESFR sprinkler system is designed to suppress a fire. To suppress a fire does not necessarily mean it will extinguish the fire but rather it is meant to "knock" the fire back down to its source.

As noted above, the Project would receive primary fire protection services from CVFD Station 63. Station 63 was built with the anticipation of growth in The Preserve area and is staffed to meet minimum CVFD response goals throughout The Preserve (CVFD, 2012; Chino, 2003, pp. 5.11-9-5.11-13). Although the Project would place additional demand on the CVFD for fire protection services, the incremental increase in the demand for CVFD services would not result in or require new or expanded fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives.

Although the Project would not result in the need for new or expanded fire protection facilities, as a standard condition of approval, the Project Applicant would be required to pay impact fees (DIF) for fire protection services in accordance with Chapter 3.45 of the Chino Municipal Code. The City will collect DIF fees for the Project based on building square footage. The Project's payment of DIF fees, as well as increased property tax revenues that would result from development of the Project, would be used by the City to help pay for fire protection services and other public services. (Chino, 2010b, p. 4.12-6)

Because Project implementation would not result in or require new or expanded fire protection facilities and because the Project is required to contribute appropriate DIF fees to offset the Project's increased demand for fire protection services, the Project's impacts to fire protection services would be less than significant.

Threshold b:	***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***
	b) Police protection?

The existing residences and dairy farm on the Project site receive police protection services from the CPD. Development of a parcel sorting/distribution center on the Project site has the potential to increase the frequency of police protection calls to the site relative to existing conditions.

The CPD headquarters, which opened in 2012, were designed to accommodate the CPD's expected facilities needs into the future (considering the increased demand for police protection services as Chino's population increases). In addition, the CPD operates an unstaffed substation in The Preserve area and may construct a permanent, staffed substation in The Preserve area in the future if the need arises. (Chino, 2010b, pp. 4.12-11-4.12-13; Chino, 2003, pp. 5.11-8-5.11-9) Environmental impacts associated with buildout of The Preserve Specific Plan, including buildout of The Preserve Specific Plan Community Core where the new police substation is anticipated to be constructed (if needed), were fully evaluated in The Preserve Specific Plan EIR, and the Project's incremental demand for additional police staffing and facilities would not result in the need for new or expanded police protection facilities beyond what is already anticipated by the City of Chino.

Additionally, and pursuant to City of Chino Municipal Code Chapter 3.45, the Project would be subject to payment of DIF fees, a portion of which is earmarked for law enforcement needs. Furthermore, property tax revenues generated from development of the site would provide funding to offset potential increases in the demand for police services at Project build-out. The City of Chino uses DIF fees and property tax revenues to help pay for police protection needs and other public services. (Chino, 2010b, p. 4.12-12)

Because Project implementation would not result in or require new or expanded police protection facilities and because the Project is required to contribute appropriate DIF fees to offset the Project's increased demand for police protection services, the Project's impacts to police protection services would be less than significant.

Threshold c:	***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***
	c) Schools?

The proposed Project does not include residential land uses and would not directly introduce new school-age children within the CVUSD's boundaries. Furthermore, as discussed in detail in EIR Subsection 4.12, *Population and Housing*, Project is not expected to draw a substantial number of new residents to the surrounding area as the result of unplanned population or housing growth and would not, therefore, indirectly increase unplanned enrollment at CVUSD schools. Because the proposed Project would not directly generate students and is not expected to indirectly draw students to the area, the Project would not cause or contribute to a need to construct new or physically altered public school facilities. Although the Project would not create a direct demand for additional public school services, the Project Applicant would be required to contribute development impact fees to the CVUSD in compliance with California Senate Bill 50 (Greene), which allows school districts to collect fees from new developments to offset the costs associated with increasing school capacity needs. Mandatory payment of school fees would be required prior to the issuance of building permits. Impacts to CVUSD schools would be less than significant.

Threshold d:	***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***
	d) Parks?

The Project Applicant does not propose to construct any new on- or off-site recreation facilities. Additionally, the Project would not expand any existing off-site recreational facilities. Also, the Project Applicant does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. Accordingly, implementation of the proposed Project would not result in environmental effects related to the construction or expansion of recreational facilities or the increased use or substantial physical deterioration of an existing neighborhood or regional park. No impact would occur.

Threshold e:	***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***
	e): Other public facilities?

The proposed Project does not include any residential land uses and, therefore, is not expected to result in a demand for other public facilities/services, including libraries, community recreation centers, post offices, public health facilities, and/or animal shelters. As such, implementation of the Project would not adversely affect other public facilities or require the construction of new or modified public facilities. No impact would occur.

4.13.5 Cumulative Impact Analysis

As indicated in the above analysis, implementation of the proposed Project would not result in any impacts to the physical environment associated with new or expanded schools, parks, or libraries, community recreation centers, post offices, public health facilities, and/or animal shelters, and therefore has no potential to result in cumulatively-considerable impacts to these public services.

The Project would result in an incremental increase in demand for fire protection and police protection services. When considered in association with on-going development throughout the City of Chino, these impacts could be cumulatively considerable if the increased demand would result in the need to physically expand or modify an existing public service facility or build a new facility to service the demand. Project-related development and other cumulative development in the City of Chino would be required to contribute public facility impact fees pursuant to Chino Municipal Code Chapter 3.40 (City-wide) and Chapter 3.45 (The Preserve). Mandatory fee contributions by the Project and cumulative developments – as well as the contribution of increased property tax revenues resulting from development – would ensure that adequate funding is provided to the CVFD and CPD to respond to increased demand for services. The need to physically modify or expand, or to construct a new fire station or police station (beyond those already planned by the respective agencies long-range master plans) as a result of reasonably foreseeable increased demand is not anticipated. Accordingly, the Project's impacts to the CVFD and CPD, and Chino Branch library would not be cumulatively considerable.

4.13.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project site is served by CVFD Station 63. No new or expanded fire protection facilities are needed. With mandatory payment of Development Impact Fees in compliance with City of Chino Municipal Code Chapter 3.45, the Project would result in a less-than-significant impact to fire protection facilities.

Threshold b: Less-than-Significant Impact. The Project site is served by the CPD from its headquarters building and an interim substation in The Preserve area, which have adequate physical capacity to service the

proposed Project. In the future, the Project site may also be served by a new, permanent police substation that is planned in the Community Core area of The Preserve Specific Plan, the environmental effects of which were previously evaluated under CEQA in The Preserve Specific Plan EIR. With mandatory payment of Development Impact Fees in compliance with City of Chino Municipal Code Chapter 3.45, impacts to police protection facilities would be less than significant.

Threshold c: Less-than-Significant Impact. The Project would not generate a student population requiring public education services. With mandatory payment of fees in accordance with California Senate Bill 50 (Greene), impacts to public schools would be less than significant.

Threshold d: No Impact. The Project would not generate a resident population requiring public parks. The Project would not result in a substantial or measurable increase in demand for park facilities, and no impact would occur.

Threshold e: No Impact. The Project would not generate a resident population requiring public library services or other public services.

4.13.7 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.14 TRANSPORTATION AND TRAFFIC

This Subsection is based on a traffic impact analysis (TIA) report prepared by Urban Crossroads, titled "Chino Parcel Delivery Traffic Impact Analysis, City of Chino" and dated November 13, 2018, which is included as *Technical Appendix K* to this EIR (Urban Crossroads, 2018e). The TIA was prepared in accordance with the City of Chino's traffic study requirements, and also, where relevant, addresses requirements of the County of San Bernardino Congestion Management Program and the California Department of Transportation's traffic study guidelines.

4.14.1 STUDY AREA DESCRIPTION

The geographic area that was evaluated for Project-related effects to the transportation and circulation network is defined as follows (hereafter referred to as the "Project Study Area" or "Study Area"):

A. Intersections

Pursuant to its traffic study guidelines, the City of Chino requires a performance analysis of intersections that would receive 50 or more peak hour trips from a development project. A "peak hour trip" is defined as a trip that occurs between the hours of 7:00 AM and 9:00 AM (AM peak hour) or between the hours of 4:00 PM and 6:00 PM (PM peak hour) (Urban Crossroads, 2018e, p. 105). The "50 peak hour trip" criteria utilized by the City of Chino is consistent with the methodology utilized by many other CEQA lead agency and government jurisdictions, including the Counties of San Bernardino and Riverside and the City of Ontario, and generally represents a bright-line threshold at which a single development project would have the potential to substantially affect the performance of a typical intersection. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a valid and proven way to establish a study area. (Urban Crossroads, 2018e, p. 7)

Forty-seven (47) intersections are located within the Project Study Area. These intersections are identified on Figure 4.14-1, *Study Area Intersection Locations*, and are listed in Table 4.14-1, *Study Area Intersection Locations*. The Study Area includes intersections under the jurisdictions of the Cities of Chino, Ontario, Chino Hills, Eastvale, Jurupa Valley, and the California Department of Transportation (Caltrans). (Urban Crossroads, 2018e, pp. 4-5)

B. Roadway Segments

Most of the Project's traffic – and all Project truck trips – will travel to and from the site via Merrill Avenue. Merrill Avenue is a designated truck route and provides east-west access to and from the Project site to reach the State highway system. The Project Study Area includes three (3) Merrill Avenue segments that would receive the highest volume of Project traffic; these segments are listed in Table 4.14-2, *Study Area Roadway Segments*. Merrill Avenue is under the joint jurisdiction of the City of Chino and the City of Ontario; the southern half of Merrill Avenue is located in the City of Chino and the northern half of Merrill Avenue is located in the City of Ontario.

C. *Freeways*

All freeway mainline segments and ramps are under the jurisdiction of the Caltrans. Caltrans typically requests that CEQA lead agencies include an analysis of potential impacts to freeway mainline segments when a proposed project is calculated to contribute 50 or more two-way peak hour trips to a State highway facility that is experiencing noticeable delay and approaching unstable traffic flow. Because impacts to freeway segments dissipate with distance from the point of entry to the State Highway System (i.e., at ramps receiving a project's traffic), Caltrans has indicated that when a project's traffic volumes dissipate to fewer than 50 peak hour trips on a freeway mainline segment, they become unrecognizable from other traffic on the State Highway System. Thus, Caltrans does not require a project's entire vehicular travel path on State highway facilities to be studied.

Notwithstanding, in order to present a comprehensive analysis, the Project Study Area includes all freeway segments adjacent to the points of entry to the state highways that are located near the Project site (i.e., SR-60, SR-71, I-15), even where the Project is calculated to contribute less than 50 peak hour trips. The fourteen (14) freeway mainline segments located in the Project Study Area are listed in Table 4.14-3, *Study Area Freeway Mainline Segments*, and the fifteen (15) freeway merge/diverge ramp junctions included in the Study Area are listed in Table 4.14-4, *Study Area Freeway Merge/Diverge Ramp Junctions*. (Urban Crossroads, 2018e, pp. 7-8)

4.14.2 Existing Conditions

The Project site is located in the southeastern portion of the City of Chino, south of Merrill Avenue, west of Flight Avenue, and northeast of Chino Airport. The Project site is located approximately 4.0 miles west of I-15, approximately 3.3 miles south of SR-60, and approximately 3.2 miles northeast of SR-71 (Google Earth, 2018).

A. *Existing Local Roadway Conditions*

Weekday AM and PM peak hour traffic count data was collected at Study Area intersections and roadway segments in May 2017. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1 of *Technical Appendix K*. On the dates that traffic counts were collected, there were no atypical traffic conditions (e.g. construction activity or detour routes) and nearby schools were in session and operating on normal schedules. (Urban Crossroads, 2018e, p. 103)

The traffic count data includes a tabulation of passenger cars, 2-axle trucks, 3-axle trucks, and 4-or-more axle trucks. Larger vehicles take up more space on the roadway and take longer to accelerate and decelerate than smaller, passenger vehicles; therefore, converting larger vehicle into passenger car equivalents (PCEs) allows for the real-world effect that larger vehicles have on roadways to be accurately reflected in the TIA and for traffic to be represented as a standardized unit. For purposes of this analysis, a PCE factor of 1.5 is applied to 2-axle truck trips, 2.5 is applied to 3-axle truck trips, and 3.0 is applied to 4-or-more-axle truck trips. These PCE factors follow the recommendations of the *San Bernardino County Congestion Management Plan (CMP)*. (Urban Crossroads, 2018e, p. 105)

Existing weekday average daily traffic (ADT) volumes on local roadways throughout the Project Study Area are shown on Figure 4.14-2, *Existing Average Daily Traffic (PCE)*. Existing AM and PM peak hour intersection volumes are shown on Figure 4.14-3, *Existing Peak Hour Intersection Volumes (PCE)*. Except where specifically noted, all of the vehicle trips/traffic volumes illustrated on Figure 4.14-2 and Figure 4.14-3 and presented elsewhere in this EIR Subsection are shown in terms of PCE.

1. Existing Intersection Level of Service

Existing (2017) peak hour traffic operations calculated for the Study Area intersections are based on the analysis methodologies presented in Subsection 4.14.4 and are summarized in Table 4.14-5, *Existing Intersection Levels of Service*. Refer to Subsection 4.14.4, for an explanation of the term "level of service" (LOS). As shown in Table 4.14-5, all intersections in the Study Area operate at acceptable LOS during peak hours under existing conditions, with the exception of the following:

- Euclid Avenue/SR-60 Eastbound Ramps (Intersection #2) – LOS F in the AM peak hour; and
- Hellman Avenue/Kimball Avenue (Intersection #29) – LOS F in the AM & PM peak hours.

2. Existing Roadway Segment Level of Service

Existing (2017) roadway segment operations, which were calculated for Study Area roadway segments using the analysis methodologies presented in Subsection 4.14.4, are summarized in Table 4.14-6, *Existing Roadway Segment Level of Service*. As shown in Table 4.14-6, all roadway segments in the Study Area operate at acceptable LOS under existing conditions.

B. Existing Freeway Conditions

Freeway mainline segment and interchange traffic volume data was obtained from Caltrans' Performance System (PeMS) website in May 2017. Data was collected for a period of three consecutive days and the maximum value observed within this three-day period is utilized as the baseline for the weekday, peak hour conditions. Actual vehicles, as opposed to PCE volumes, were used to calculate freeway density and the corresponding LOS/ramp queuing summaries in accordance with industry-standard methodology for freeway facilities (i.e., Transportation Research Board's Highway Capacity Manual) (Urban Crossroads, 2018e, pp. 66-67). Table 4.14-4, *Study Area Freeway Merge/Diverge Ramp Junctions*, illustrates weekday, peak hour traffic volumes (actual vehicles) along freeway facilities in the Study Area.

1. Existing Freeway Mainline Level of Service

The peak hour LOS for each freeway mainline segment in the Study Area is summarized in Table 4.14-7, *Existing Freeway Mainline Levels of Service*. Peak hour operations along freeway mainline segments in the Study Area were calculated using the analysis methodologies presented in Subsection 4.14.4. As summarized in Table 4.14-7, all freeway mainline segments located in the Study Area operate at acceptable LOS during the peak hours under existing conditions with the exception of the I-15 Southbound segment south of Limonite Avenue, which operates at LOS E in the AM peak hour.

2. Existing Freeway Ramp Level of Service

The existing peak hour queuing and merge/diverge LOS at freeway ramps in the Study Area are summarized in Table 4.14-8, *Existing Freeway Ramp Queuing Summary*, and Table 4.14-9, *Existing Freeway Ramp Merge/Diverge Levels of Service*, respectively. The peak hour queuing and merge/diverge performance were calculated using the analysis methodologies presented in Subsection 4.14.4. As shown in Table 4.14-8 and Table 4.14-9, all freeway ramps in the Study area experience acceptable queuing but the following ramp merge/diverge areas operate at unacceptable LOS:

- SR-60 Westbound, Off-Ramp at Euclid Avenue – LOS E in the AM and PM peak hours;
- SR-60 Eastbound, Off-Ramp at Euclid Avenue – LOS E in the AM peak hour; and
- I-15 Southbound, Off-Ramp at Limonite Avenue – LOS E in the PM peak hour.

C. Existing Mass Transit

The Project Study Area is served by Omnitrans, a public transit agency serving various jurisdictions within San Bernardino County. No transit lines serve the Project site or the immediate surrounding area. (Urban Crossroads, 2018e, p. 93)

D. Existing Pedestrian and Bicycle Facilities

Field observations collected by Urban Crossroads in May 2017 indicate nominal pedestrian and bicycle activity within the Project Study Area (Urban Crossroads, 2018e, p. 95). Under existing conditions, there are no sidewalks along the Project site's frontages with Merrill Avenue or Flight Avenue; however, there are sidewalks along both Merrill Avenue and Flight Avenue to the east of the Project site that were installed as part of the adjacent Watson Industrial Park Chino project (Urban Crossroads, 2018e, Exhibit 3-23).

E. Existing Airport Facilities

The Project site is located less than 0.1-mile east/north of the nearest runway at the Chino Airport and is located within the Airport's Airport Influence Area (AIA). At present, there is no valid Airport Land Use Compatibility Plan (ALUCP) for San Bernardino that addresses the Chino Airport, as the 1991 adopted plan does not reflect the current Airport Master Plan for this facility. As previously shown on Figure 2-4, *Chino Airport Safety Zone* (refer to EIR Section 2.0, *Environmental Setting*), the southern portion of the Project site is located within Airport Safety Zones I and II, and the remainder of the property is located within Airport Safety Zone III. Within Safety Zone I, the General Plan and the 1991 ALUCP prohibit residential and industrial structures while discouraging residential development and recommending that non-residential uses in enclosed structures be limited to no more than 25 persons per acre within Safety Zone II. Within Safety Zone III, the General Plan and the 1991 ALUCP recommend no restriction on residential or other land uses.

The Project site also is located approximately 5.0 miles south of the nearest runway at the Ontario International Airport. The Project site is not located within the AIA for the Ontario Airport, and as such would not be exposed to airport safety hazards associated with operations at the Ontario Airport (Ontario, 2011, Map 2-1; Google Earth, 2018)

4.14.3 Applicable Environmental Plans, Policies, and Regulations

A. *Local Plans, Policies, and Regulations*

1. *SCAG Regional Transportation Plan/Sustainable Communities Strategy*

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. On April 7, 2016, SCAG adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* with goals to: 1) preserve the existing transportation system; 2) expand the regional transit system; 3) expand passenger rail; 4) improve highway and arterial capacity; 5) manage demands on the transportation system; 6) optimize the performance of the transportation system; 7) promote forms of active transportation; 8) strengthen the regional transportation network for goods movement; 9) leverage technology; 10) improve airport access; and 11) focus new growth around transit (SCAG, 2016, pp. 6-8)

2. *San Bernardino County Congestion Management Program*

The *San Bernardino County Congestion Management Program (CMP)* was prepared by the San Bernardino Associated Governments (SANBAG). The intent of the *CMP* is to create a link between land use, transportation, and air quality planning decisions and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The *San Bernardino CMP* was first adopted in November 1992 and has since been updated 12 times, with the most recent comprehensive update in June 2016. The following intersections in the Project Study Area are part of the *San Bernardino CMP* roadway network (Urban Crossroads, 2018e, pp. 4-5):

- Euclid Avenue/SR-60 Westbound Ramps (Intersection #1)
- Euclid Avenue/SR-60 Eastbound Ramps (Intersection #2)
- Euclid Avenue/Walnut Street (Intersection #3)
- Euclid Avenue/Riverside Drive (Intersection #4)
- Euclid Avenue/Edison Avenue (Intersection #7)
- Main Street/Kimball Avenue (Intersection #19)
- Archibald Avenue/SR-60 Westbound Ramps (Intersection #33)
- Archibald Avenue/SR-60 Eastbound Ramps (Intersection #34)
- Archibald Avenue/Riverside Drive (Intersection #35)

In addition, there are (3) *San Bernardino CMP* network freeway located within the Project Study Area: SR-60, SR-71, and SR-83 (SANBAG, 2016, Figure 2-1).

3. *Riverside County Congestion Management Program*

The *Riverside County Congestion Management Program (CMP)* was prepared by the Riverside County Transportation Commission (RCTC). The intent of the *CMP* is to more directly link land use, transportation,

and air quality planning decisions and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The *Riverside County CMP* was first adopted in December 1992 and has been updated 11 times, with the most recent comprehensive update in December 2011. The *Riverside County CMP* states that deficiencies along the *CMP* system must be identified when they occur so that improvement measures can be identified. Understanding the reason for these deficiencies and identifying ways to reduce the impact of future growth and development along a critical *Riverside County CMP* corridor is intended to conserve scarce funding resources and help target those resources appropriately. (RCTC, 2011, p. ES-1) The *Riverside County CMP* roadway network includes the following intersections in the Project Study Area (Urban Crossroads, 2018e, pp. 4-5):

- Archibald Avenue/Limonite Avenue (Intersection #41)
- Harrison Avenue/Limonite Avenue (Intersection #42)
- Sumner Avenue/Limonite Avenue (Intersection #43)
- Scholar Way/Limonite Avenue (Intersection #44)
- Hamner Avenue/Limonite Avenue (Intersection #45)
- I-15 Southbound Ramps/Limonite Avenue (Intersection #46)
- I-15 Northbound Ramps/Limonite Avenue (Intersection #47)

In addition, there is one (1) *Riverside County CMP* network freeway located within the Project Study Area: I-15 (RCTC, 2011, Exhibit 2-1).

4. San Bernardino County Measure "I"

Measure "I," a one-half of one percent sales tax on retail transactions, was approved by San Bernardino County voters in 1989 and extended by County voters in 2004 to remain effective through the year 2040. The revenue generated by Measure "I" is to be used to fund transportation projects including, but not limited to, roadway improvements, commuter rail, public transit, and other identified improvements. Measure "I" also required that a local traffic impact fee be created to ensure that development projects are paying a fair share for transportation projects from which they would benefit (see discussion of "City of Chino Development Impact Fee," below). Revenues collected through local traffic impact fee programs are used in tandem with regional Measure "I" revenues to fund projects identified in the SANBAG Development Mitigation Nexus Study (included as Appendix G to the *San Bernardino County CMP*). (Urban Crossroads, 2018e, p. 27)

5. City of Chino Development Impact Fee (DIF) Program

The City Chino created its Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding local improvements necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The identification of specific roadway and intersection improvement projects and the timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. (Urban Crossroads, 2018e, pp. 26-27)

6. Cities of Chino, Ontario, Eastvale, Chino Hills, and Jurupa Valley General Plan Circulation Elements

The General Plans for the Cities of Chino, Ontario, Eastvale, and Jurupa Valley each contain a Circulation Element that is intended to guide the development of the local circulation system in a manner that is compatible with the respective General Plan Land Use Element. To help meet projected traffic demands and achieve balanced growth, each city has adopted specific goals and policies, which serve as the basis for their Circulation Element. Refer to *Technical Appendix K* for a detailed summary of the General Plan Circulation Elements for the Cities of Chino, Ontario, Eastvale, and Jurupa Valley.

4.14.4 Traffic Impact Analysis Methodology

The traffic impact analysis provided in *Technical Appendix K* and summarized in this Subsection evaluates the Project's potential traffic impacts using the methodology described on the following pages.

A. Level of Service

The performance of roadway facilities is described using the term "level of service" (LOS). LOS has been used as the basis for determining the significance of traffic impacts as standard practice in CEQA documents for decades. LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. In 2013, the California Legislature passed Senate Bill (SB) 743, which is intended to provide local governments with flexibility to balance the competition between the need to use the LOS metric for local traffic planning and the need to provide infill housing and mixed-use commercial developments within walking distance of mass transit facilities, downtowns, and town centers. As a component of the State's revisions to the CEQA Guidelines in December 2018, lead agencies will be required to adopt VMT thresholds of significance by July 1, 2020 (CEQA Guidelines § 15064.3(c)). At the time the this EIR was prepared, the City of Chino in its capacity as Lead Agency, as well as surrounding local agencies in which the Project's traffic would circulate, use LOS as the significance criteria for evaluating a Project's traffic impacts. For this reason, a LOS metric and not a VMT metric is appropriately applied in the analysis presented in this EIR.

Six (6) LOS designations are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. Table 4.14-10, *Signalized Intersection LOS Thresholds*, and Table 4.14-11, *Unsignalized Intersection LOS Thresholds*, summarize typical operational conditions at signalized and unsignalized intersections for each LOS classification, respectively. (Urban Crossroads, 2018e, pp. 61-63)

B. Intersection Capacity Analysis

The intersection LOS analysis is based on the traffic volumes observed during weekday peak hour conditions. The following weekday peak hours were selected for analysis because these hours are typically experience the most traffic during a 24-hour period: AM peak hour, between 7:00 AM and 9:00 AM, and PM peak hour, between 4:00 PM and 6:00 PM. (Urban Crossroads, 2018e, p. 105)

At signalized intersections, peak hour performance is calculated using the methodology described in the Transportation Research Board's *Highway Capacity Manual (HCM)*. Intersection performance is based on the average control delay at each leg of the intersection. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. At signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.14-10. The traffic modeling and signal timing optimization software package Synchro (Version 9) was used to analyze signalized intersections capacity as specified in the *HCM*. (Urban Crossroads, 2018e, pp. 61-62)

At unsignalized intersections, operations were evaluated using the methodology described in the *HCM*. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.14-11. (Urban Crossroads, 2018e, p. 63)

For a more detailed discussion on intersection capacity analysis methodology, refer to Subsection 2.2 of *Technical Appendix K*.

C. Roadway Segment Analysis

Roadway segment operations were evaluated against the daily capacity values contained in the City of Chino General Plan Circulation Element. The roadway capacities contained in the General Plan are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration, and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic. As such, if the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis are undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Accordingly, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes. (Urban Crossroads, 2018e, p. 64)

D. Freeway Analysis

1. Freeway Mainline Segment Analysis

For purposes of analysis, the freeway system in the Project Study Area has been divided into segments defined by the freeway-to-arterial interchange locations. Freeway mainline performance is based upon peak hour directional volumes, and the freeway segment analysis is based on the methodology described in the *HCM* and performed using HCS2010 software. The performance measure used by Caltrans to calculate LOS along freeway mainlines is vehicle density. Density is expressed in terms of passenger cars per mile per lane. Table 4.14-12, *Freeway Mainline LOS Thresholds*, summarizes the freeway segment LOS thresholds

for each density range. (Urban Crossroads, 2018e, pp. 66-67) For a more detailed discussion of freeway mainline segment analysis methodology, refer to Subsection 2.6 of *Technical Appendix K*.

2. Freeway Ramp Queuing Analysis

The traffic modeling software package Synchro is used to evaluate the performance of freeway ramps, in terms of vehicle queuing. Storage (turn-pocket) length recommendations at the ramps are based upon the 95th percentile queue, which represents the length of the queue during 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group. (Urban Crossroads, 2018e, pp. 65-66) For more information on the freeway ramp queuing analysis methodology, refer to Subsection 2.5 of *Technical Appendix K*.

3. Freeway Ramp Junction Merge/Diverge Analysis

The freeway ramp junction merge / diverge analysis is based on the methodology recommended in the *HCM* and performed using HCS2010 software. Although the *HCM* indicates the influence area for a freeway ramp merge/diverge junction is 1,500 feet, the Project's analysis was performed at all ramp locations with respect to the nearest on- or off-ramp at each interchange to be consistent with Caltrans guidance. The results – reported in passenger car per mile per lane – are calculated based on the existing number of travel lanes, number of lanes at the on- and off-ramps both at the analysis junction and at upstream and downstream locations (if applicable), and acceleration/deceleration lengths at each freeway ramp merge/diverge junction. (Urban Crossroads, 2018e, pp. 67-68) Table 4.14-13, *Freeway Ramp Junction Merge/Diverge LOS Thresholds*, summarizes the freeway ramp junction merge/diverge LOS thresholds utilized in the analysis. For more information on the freeway ramp junction merge/diverge analysis methodology, refer to Subsection 2.7 of *Technical Appendix K*.

E. Cumulative Projects

CEQA Guidelines § 15130 requires that an EIR disclose the impact from the Project along with the incremental impacts from closely-related past, present, and reasonably foreseeable future projects (i.e., cumulative impact analysis). As previously described in EIR Subsection 4.0, *Environmental Analysis*, the Project's cumulative traffic impacts analysis utilizes a summary of projections approach plus a list of projects approach in order to provide a conservative analysis of cumulative impacts. Descriptive information about each project considered in the cumulative impact analysis can be found in EIR Subsection 4.0 and Subsection 4.6 of *Technical Appendix K*. (Urban Crossroads, 2018e, pp. 141-147)

F. Future Year Background Traffic

1. Opening Year (2020) Background Traffic

Opening Year (2020) background traffic forecasts are based upon a background (or ambient) growth rate of 2 percent (%) per year above Existing (2017) conditions. This ambient growth factor is intended to approximate area-wide growth not accounted by the known cumulative development projects that were manually added to the traffic impact analysis (see Subsection 4.14.4E, above). (Urban Crossroads, 2018e, p. 131) According to regional population projections included in SCAG's *2016 RTP/SCS*, the City of Chino's

population is projected to increase 51.6% between 2012 and 2040, which corresponds to an approximately 1.5% annual population growth rate. Over this same time period, employment within Chino is projected to increase by 18.78 percent, which corresponds to an approximately 0.62 percent annual employment growth rate. Not every new person, household, and/or job in the City of Chino is expected to translate on a one-to-one basis with a new vehicle trip in the region; therefore, the 2% annual growth rate used for the Project's traffic analysis establishes a conservative estimate of the local growth rate. Based on the foregoing information, the 2% ambient growth rate utilized in the Project's traffic analysis is appropriate and would tend to overstate, as opposed to understate, potential impacts to traffic and circulation. (Urban Crossroads, 2018e, p. 141)

For more information on the derivation of opening year background traffic forecasts, refer to Subsection 4.5 of *Technical Appendix K.*

2. Horizon Year (2040) Background Traffic

Horizon Year (2040) background traffic conditions were derived from the San Bernardino County Transportation Analysis Model (SBTAM). The SBTAM model reflects long-range land use and circulation network data from cities and public agencies within San Bernardino County and is consistent with SCAG's traffic model for the southern California region. The SBTAM model was supplemented and modified using industry-accepted procedures for model forecast refinement and smoothing rather than relying solely on SBTAM model defaults. The modifications to the SBTAM model were made to provide a conservative analysis of the Project's potential long-range traffic impacts under Horizon Year (2040) conditions that would overstate – as opposed to understate – the Project's potential traffic impacts as compared to the results had the SBTAM model defaults been used.

Refer to Subsection 4.7 of *Technical Appendix K* for a detailed description of the refinements made to the SBTAM model for purposes of the Project's traffic impact analysis. (Urban Crossroads, 2018e, pp. 148-149)

G. Future Year Roadway Conditions

1. Project-Related Roadway Improvements

The roadway improvements proposed by the Project are described in detail in EIR Section 3.0, *Project Description.* The construction of these roadway improvements is assumed throughout the analysis presented in *Technical Appendix K* and this Subsection.

2. Opening Year (2020) Roadway Conditions

The traffic analysis presented in *Technical Appendix K* and summarized in this Subsection assumes that the traffic facilities listed below would be in place for the Project's Opening Year (2020), in addition to the facilities in place under existing conditions (Urban Crossroads, 2018e, p. 168) The planned Pine Avenue extension, west of El Prado Road, is not expected to be completed prior to buildout of the Project; therefore, the extension was not considered in the Opening Year analyses (Urban Crossroads, 2018e, p. 149).

- Driveways and those facilities assumed to be constructed by future development to provide access to the Project site, including the Project's proposed frontage improvements to Merrill Avenue and Flight Avenue; and
- Driveways and those facilities assumed to be constructed by nearby cumulative development projects to provide access to the respective sites.

3. Horizon Year (2040) Roadway Conditions

The traffic analysis presented in *Technical Appendix K* and this Subsection for year 2040 assumes that the City of Chino, City of Ontario, City of Eastvale, City of Chino Hills, and the City of Jurupa Valley's roadway network, as described in the respective city's General Plan Circulation Elements, would be fully built-out.

Notwithstanding, buildout of the City of Eastvale Circulation Element would require the construction of a bridge spanning the Cucamonga Creek Channel in order to extend Limonite Avenue between Hellman Avenue and Archibald Avenue. Because there is no guarantee that funding for construction of the bridge and roadway will be secured by the Horizon Year (2040), the Horizon Year analysis evaluates traffic scenarios in 2040 with and without the Limonite Avenue extension (Urban Crossroads, 2018e, p. 126).

H. Fair Share Calculation

In instances where a "fair-share" monetary contribution toward the construction of roadway improvements is recommended to correct the circulation deficiency, the Project's fair-share contribution is determined by the equation presented below (Urban Crossroads, 2018e, p. 72). This calculation establishes a proportional nexus between the Project's impact and the recommended monetary contribution.

Project Fair Share % = Project Traffic ÷ (2040 with Project Total Traffic - Existing Traffic)

Refer to Subsection 2.10 of *Technical Appendix K* for more information on the methodology used to calculate fair share contribution toward future roadway improvements.

4.14.5 Basis for Determining Significance

The Project would result in a significant impact to the transportation system if the Project or any Project-related component would:

a. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit;*

b. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;*

c. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*

d. *Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);*

e. *Result in inadequate emergency access; or*

f. *Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address development projects' typical adverse effects related to transportation and traffic. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold.

The specific criteria described below are utilized to evaluate the significance of potential traffic impacts under Thresholds "a" and "b," and are based on applicable City of Chino, Ontario, Eastvale, Chino Hills, Jurupa Valley, Caltrans, *San Bernardino County CMP*, and *Riverside County CMP* performance standards.

A. Significance Criteria

1. Intersections

The Project would result in a substantial adverse effect to the performance of the circulation system if any of the following situations occur (Urban Crossroads, 2018e, pp. 70-71):

Cities of Chino, Eastvale, Chino Hills, and Jurupa Valley Facilities

- A direct impact would occur if the Project would cause an intersection to degrade from LOS D or better to LOS E or F.
- A cumulatively considerable impact would occur if an intersection is calculated to operate at an unacceptable level of service (i.e., LOS E or F) without the Project, and the Project contributes 50 or more peak hour trips to the affected intersection.

City of Ontario

- A direct impact would occur if the Project would cause an intersection to degrade from LOS E or better to LOS F.
- A cumulatively considerable impact would occur if an intersection is calculated to operate at an unacceptable level of service (i.e., LOS F) without the Project, and the Project contributes 50 or more peak hour trips to the affected intersection.

Caltrans, San Bernardino County CMP, and Riverside County CMP Facilities

- A direct impact would occur if the Project would cause a roadway facility (e.g., intersection, freeway mainline) to degrade from LOS D or better to LOS E or F.
- A cumulatively considerable impact would occur if an intersection is calculated to operate at an unacceptable level of service (i.e., LOS E or F) without the Project, and the Project contributes 50 or more peak hour trips to the affected roadway facility.

2. Freeway Mainline Segments and Ramp Junctions

For purposes of the analysis in this EIR Subsection, if a freeway mainline segment or ramp junction is projected to operate at an acceptable level of service (i.e., LOS "D" or better) without the Project and the Project would cause the facility to operate at an unacceptable level of service (i.e., LOS "E" or "F"), the Project's impact is considered direct and significant. If the facility would operate at a deficient LOS without the Project and the Project would contribute 50 or more peak hour trips to the affected segment and/or ramp, the addition of Project traffic would be considered cumulatively-considerable. (Urban Crossroads, 2018e, pp. 66-68)

3. Freeway Ramp Queuing

Stacking distance on freeway ramps is acceptable if the required 95th percentile stacking distance is less than or equal to the stacking distance provided. Therefore, a significant direct or cumulative impact would occur if the 95th percentile stacking distance need was greater than the stacking distance provided. (Urban Crossroads, 2018e, pp. 65-66)

4.14.6 IMPACT ANALYSIS

Threshold a:	***Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?***

The analysis under this Threshold focuses on potential impacts to the local circulation network. Refer to Threshold "b" for an analysis of potential impacts to the *San Bernardino County CMP* and *Riverside County CMP* regional roadway networks.

❑ Project Vehicle Trip Generation

Vehicle trip generation represents the amount of traffic that is both attracted to and produced by a development project. Determining traffic generation for a specific project is, therefore, based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses proposed by a given project.

The Project's vehicle trips were calculated based on traffic counts collected from an existing parcel delivery facility located in Pacoima, California. Traffic counts were collected over two days at the Pacoima facility and averaged to develop daily and peak hour trip generation rates that were applied to the Project (refer to Table 4.14-14, *Project Trip Generation Summary*). Data from the Pacoima facility was selected to formulate the Project's trip generation rate because the facility's operations are comparable to the anticipated operations at the Project site and because the Institute of Transportation Engineers Trip Generation Manual has limited data for parcel sorting/distribution uses. (Urban Crossroads, 2018e, pp. 121-122) Based on the Project's trip generation rate, the Project is calculated to generate to generate 3,905 actual daily vehicle trips, including 2,642 daily passenger car trips and 1,263 truck trips (Urban Crossroads, 2018e, Table 4-2). Detailed calculations for the Project's traffic trips are presented in Table 4.14-14.

As noted earlier in this Subsection, PCE trips are a better metric to reflect the real-world effect of larger vehicles (i.e., trucks) on the circulation system than are actual vehicle trips. Additionally, the City of Chino requires the use of PCE trips for traffic impact analyses for non-residential projects. Table 4.14-14 summarizes the Project's trip generation with PCE factors applied. After applying the PCE factors, the Project is calculated to generate 4,976 daily PCE trips, including 589 PCE trips in the AM peak hour and 409 PCE trips in the PM peak hour (Urban Crossroads, 2018e, Table 4-2). The Project's PCE trips are utilized throughout the analysis in *Technical Appendix K* and presented in this EIR Subsection to evaluate the Project's effect to the transportation and circulation network unless specifically noted.

For more information on the trip generation methodology, refer to Subsection 4.1 of *Technical Appendix K*.

❑ Project Vehicle Trip Distribution

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by a development project's traffic. The trip distribution for the proposed Project was developed based on anticipated passenger car and truck travel patterns to-and-from the Project site. The traffic distribution pattern for the Project's truck trips is illustrated on Figure 4.14-5 and the traffic distribution pattern for the Project's passenger car trips is illustrated on Figure 4.14-6 through Figure 4.14-8. Truck trips were distributed to Merrill Avenue because it is a designated truck route.

Based on the Project's traffic generation and trip distribution patterns, the Project's average daily traffic (ADT) contribution along Study Area roadways and peak hour traffic contributions at Study Area intersections are shown on Figure 4.14-9 through Figure 4.14-14. The Project's traffic generation and trip distribution patterns also were used to determine the Project's annual VMT – 15,972,538 for automobiles and 40,751,382 for trucks – which is disclosed here for informational purposes but not factored into the determination of the significance of the Project's potential impacts to transportation facilities (Urban Crossroads, 2018f, pp. 24-25).

❑ Analysis Scenarios

The Project's potential impacts to the local transportation and circulation network are assessed for each of the scenarios listed below.

- Short-term Construction Conditions
- Existing (2017) plus Project Conditions
- Opening Year (2020)
- Horizon Year (2040)
  - Horizon Year (2040) without Limonite Avenue Extension
  - Horizon Year (2040) with Limonite Avenue Extension

The Short-term Construction conditions analysis evaluates the potential for the Project's construction-related traffic to result in an adverse effect to the local roadway system.

The Existing (2017) plus Project (E+P) analysis evaluates the potential for the Project's traffic to directly impact the roadway system under the theoretical scenario where the Project is added to existing conditions. The E+P scenario is presented to disclose direct impacts as required by CEQA. In the case of the proposed Project, the estimated time period between the commencement of the Project's CEQA analysis (2017) and Project buildout (2020) is three years. During this time period, traffic conditions are not static – other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real-world conditions when the proposed Project is constructed and becomes operational.

The Opening Year (2020) analysis includes an evaluation of traffic conditions at full buildout of the Project. The Opening Year analysis is utilized to determine the Project's potential to cumulatively contribute to near-term circulation system deficiencies upon consideration of existing traffic + ambient growth + Project traffic + traffic from cumulative development projects.

The Horizon Year (2040) analysis is utilized to determine if planned improvements funded through local and regional transportation mitigation fee programs, such as the City of Chino Development Impact Fee program or other approved funding mechanisms, can accommodate the Study Area's expected long-term growth at the target LOS identified in the Circulation Elements of relevant General Plans.

Refer to *Technical Appendix K* for a detailed discussion of the methodologies and assumptions for each analysis scenario, and a list of cumulative development projects considered in the analysis.

A. Impact Analysis for Short-Term Construction Traffic Conditions

During the Project's construction phase, traffic to-and-from the subject property would be generated by activities such as construction employee trips, construction materials deliveries, and the use/delivery of heavy equipment.

Vehicular traffic associated with construction employees would be substantially less than daily and peak hour traffic volumes generated during Project operational activities – and is expected to be less than 50 peak

hour trips – because construction activities typically begin and end outside of the peak hours. Accordingly, a majority of the construction employees would not be driving to / from the Project site during hours of peak congestion and traffic from construction workers is not expected to result in a substantial adverse effect to Project Study Area intersections. Construction materials deliveries to the Project site also would also have a nominal effect to Project Study Area intersections. Construction materials would be delivered to the site throughout the construction phase – mostly outside of peak hours – based on need and would not occur on an everyday basis. Heavy equipment would be utilized on the Project site during the construction phase. As most heavy equipment is not authorized to be driven on public roadways, most equipment would be delivered and removed from the site via flatbed trucks (sometimes with multiple pieces of equipment delivered to the site on a single trip). As with the delivery of construction materials, the delivery of heavy equipment to the Project site would not occur on a daily basis but would occur periodically throughout the construction phase based on need. As described in EIR Section 3.0, *Project Description*, only up to eight (8) pieces of construction equipment are expected on the Project site during any given phase of construction; therefore, deliveries of construction equipment to the Project site is not expected to generate substantial traffic.

Based on the foregoing, traffic generated by the Project's construction phase would not result in a conflict with a program, plan, ordinance, or policy addressing the circulation system or establishing measures of effectiveness for the performance of the circulation system. Impacts during the Project's construction phase would be less than significant.

B. Impact Analysis for Existing plus Project Traffic Conditions

Projected weekday ADT volumes and peak hour intersection volumes for E+P traffic conditions are shown on Figure 4.14-15, *Existing plus Project Average Daily Traffic*, and Figure 4.14-16, *Existing plus Project Peak Hour Intersection Volumes.*

❑ Intersection Operations Analysis

Table 4.14-15, *Existing plus Project Intersection Analysis*, summarizes the peak hour LOS at Project Study Area intersections under E+P conditions. As shown in Table 4.14-15, all Project Study Area intersections would operate at acceptable LOS under E+P traffic conditions with the exception of the following:

- Euclid Avenue/SR-60 Westbound Ramps (Intersection #2) – LOS F in the AM peak hour;
- Grove Avenue/Merrill Avenue (Intersection #18) – LOS F in the AM peak hour;
- Flight Avenue/Kimball Avenue (Intersection #25) – LOS E in the AM peak hour; and
- Hellman Avenue/Kimball Avenue (Intersection #29) – LOS F in the AM & PM peak hour.

The Project would cause the LOS at Intersections #18 and #25 to degrade to unacceptable LOS in the AM peak hour during E+P traffic conditions, which represents a significant, direct impact.

As previously disclosed in Subsection 4.14.2, Intersections #2 and #29 operate at deficient LOS under existing conditions. Accordingly, the Project would not cause the LOS deficiencies at these intersections and

the Project's direct impacts at Intersections #2 and #29 would be less than significant. Notwithstanding, the Project would contribute more than 50 peak hour trips to Intersections #2 and #29 under E+P traffic conditions; therefore, the Project's contribution to the LOS deficiencies would be cumulatively considerable.

Although the Flight Avenue/Merrill Avenue intersection (Intersection #20) and the Flight Avenue/Remington Avenue intersection (Intersection #24) are expected to operate at acceptable LOS during the AM and PM peak hours under E+P traffic conditions, the traffic volumes from the Project would cause these intersections to warrant a traffic signal (Urban Crossroads, 2018e, p. 158). The Project's impacts at Intersections #20 and #24 thus represent significant, direct impacts.

❑ Roadway Segment Operations Analysis

All roadway segments in the Project Study Area would operate at acceptable LOS during E+P traffic conditions, as shown in Table 4.14-16, *Existing plus Project Roadway Segment Analysis*.

C. Opening Year (2020) Impact Analysis

Projected weekday ADT volumes and peak hour intersection volumes for Opening Year (2020) traffic conditions are shown on Figure 4.14-17, *Opening Year (2020) Average Daily Traffic*, and Figure 4.14-18, *Opening Year (2020) Peak Hour Intersection Volumes*.

❑ Intersection Operations Analysis

As summarized in Table 4.14-17, *Opening Year (2020) Intersection Analysis*, the following 26 Study Area intersections would operate at unacceptable LOS under Opening Year traffic conditions.

- Euclid Avenue/SR-60 WB Ramps (Intersection #1) – LOS F in the AM & PM peak hours;
- Intersection #2 – LOS F in the AM peak hour & LOS E in the PM peak hour;
- Euclid Avenue/Riverside Drive (Intersection #4) – LOS F in the AM & PM peak hours;
- Euclid Avenue/Chino Avenue (Intersection #5) – LOS F in the AM & PM peak hours;
- Euclid Avenue/Schaefer Avenue (Intersection #6) – LOS F in the AM & PM peak hours;
- Euclid Avenue/Edison Avenue (Intersection #7) – LOS F in the AM & PM peak hours;
- Euclid Avenue/Merrill Avenue (Intersection #9) – LOS F in the AM & PM peak hours;
- Euclid Avenue/Kimball Avenue (Intersection #10) – LOS F in the AM & PM peak hours;
- Euclid Avenue/Bickmore Avenue (Intersection #11) – LOS E in the AM peak hour;
- Euclid Avenue/Pine Avenue (Intersection #12) – LOS F in the AM & PM peak hours;
- Bon View Avenue/Merrill Avenue (Intersection #15) – LOS E in the AM peak hour & LOS F in the PM peak hour;
- Intersection #18 – LOS F in the AM & PM peak hours;
- Flight Avenue/Merrill Avenue (Intersection #20) – LOS F in the AM & PM peak hours;
- Intersection #25 – LOS F in the AM & PM peak hours;
- Baker Avenue and Van Vliet Avenue/Merrill Avenue (Intersection #26) – LOS F in the PM peak hour;

- Hellman Avenue/Merrill Avenue (Intersection #28) – LOS F in the AM & PM peak hours;
- Carpenter Avenue/Merrill Avenue (Intersection #32) – LOS F in the AM & PM peak hours;
- Archibald Avenue/SR-60 WB Ramps (Intersection #33) – LOS F in the AM peak hour & LOS E in the PM peak hour;
- Archibald Avenue/SR-60 EB Ramps (Intersection #34) – LOS F in the AM peak hour & LOS E in the PM peak hour;
- Archibald Avenue/Riverside Drive (Intersection #35) – LOS F in the AM & PM peak hours;
- Archibald Avenue/Schaefer Avenue (Intersection #37) – LOS F in the AM & PM peak hours;
- Archibald Avenue/Ontario Ranch Road (Intersection #38) – LOS F in the AM & PM peak hours;
- Archibald Avenue/Merrill Avenue (Intersection #40) – LOS F in the AM & PM peak hours;
- Archibald Avenue/Limonite Avenue (Intersection #41) – LOS F in the AM & PM peak hours;
- Harrison Avenue/Limonite Avenue (Intersection #42) – LOS E in the AM peak hour; and
- Hamner Avenue/Limonite Avenue (Intersection #45) – LOS E in the PM peak hour.

The Project's contribution to the LOS deficiencies at the above-listed intersections would be cumulatively considerable, excepting PM peak hour impacts at Intersections #1, #12, and #33. The Project would send fewer than 50 peak hour trips to Intersections #1, #12, and #33 during the PM peak hour; therefore, the Project's contribution to the PM peak hour deficiencies at Intersections #1, #12, and #33 would not be cumulatively considerable.

❑ Roadway Segment Operations Analysis

All roadway segments in the Study Area would operate at deficient LOS during Opening Year traffic conditions, as summarized in Table 4.14-18, *Opening Year (2020) Roadway Segment Analysis*. The Project's contribution to the LOS deficiencies along Study Area roadway segments would be cumulatively considerable.

D. Horizon Year (2040) Impact Analysis

Projected weekday ADT volumes and peak hour intersection volumes for Horizon Year (2040) traffic conditions without the Limonite Avenue extension and are shown on Figure 4.14-19 and Figure 4.14-20 and projected weekday ADT volumes and peak hour intersection volumes for Horizon (2040) traffic conditions with the Limonite Avenue extension are shown on Figure 4.14-21 and Figure 4.14-22, respectively.

❑ Intersection Operations Analysis

Without Limonite Avenue Extension

Table 4.14-19 summarizes the LOS of Study Area intersections during the AM and PM peak hours under Horizon Year traffic conditions *without* the Limonite Avenue extension. As shown in Table 4.14-19, *Horizon Year (2040) Intersection Analysis – Without Limonite Extension*, the following intersections would operate at deficient LOS in the Horizon Year *without* the Limonite Avenue extension:

- Intersection #1 – LOS F in the AM peak hour & LOS E in the PM peak hour;

- Intersection #2 – LOS E in the PM peak hour;
- Intersection #4 – LOS F in the AM & PM peak hours;
- Intersection #5 – LOS F in the AM & PM peak hours;
- Intersection #6 – LOS F in the AM & PM peak hours;
- Intersection #7 – LOS F in the AM & PM peak hours;
- Euclid Avenue/Eucalyptus Avenue (Intersection #8) – LOS F in the AM & PM peak hours;
- Intersection #9 – LOS F in the AM & PM peak hours;
- Intersection #10 – LOS F in the AM & PM peak hours;
- Intersection #11 – LOS F in the AM & PM peak hours;
- Intersection #12 – LOS F in the AM & PM peak hours;
- SR-71 SB Ramps/Euclid Avenue (Intersection #14) – LOS F in the AM peak hour;
- Intersection #15 – LOS E in the PM peak hour;
- Intersection #18 – LOS F in the AM & PM peak hours;
- Intersection #25 – LOS F in the AM & PM peak hours;
- Intersection #26 – LOS "F" in the PM peak hour;
- Intersection #28 – LOS F in the AM and PM peak hours;
- Hellman Avenue/Kimball Avenue (Intersection #29) – LOS F in the AM & PM peak hours;
- Hellman Avenue/Chandler Avenue (Intersection #31) – LOS F in the AM peak hour;
- Intersection #32 – LOS F in the AM & PM peak hours;
- Intersection #33 – LOS E in the AM peak hour & LOS F in the PM peak hour;
- Intersection #34 – LOS F in the AM & PM peak hours;
- Intersection #35 – LOS F in the AM & PM peak hours;
- Archibald Avenue/Chino Avenue (Intersection #36) – LOS F in the PM peak hour;
- Intersection #37 – LOS F in the AM & PM peak hours;
- Intersection #38 – LOS F in the AM & PM peak hours;
- Archibald Avenue/Eucalyptus Avenue (Intersection #39) – LOS F in the AM peak hour;
- Intersection #40 – LOS F in the AM & PM peak hours;
- Intersection #41 – LOS F in the AM & PM peak hours;
- Intersection #42 – LOS E in the PM peak hour;
- Sumner Avenue/Limonite Avenue (Intersection #43) – LOS E in the AM peak hour & LOS F in the PM peak hour;
- Scholar Way/Limonite Avenue (Intersection #44) – LOS F in the PM peak hour;
- Intersection #45 – LOS E in the AM peak hour & LOS F in the PM peak hour;
- I-15 SB Ramps/Limonite Avenue (Intersection #46) – LOS E in the AM & PM peak hours; and
- I-15 NB Ramps/Limonite Avenue (Intersection #47) – LOS E in the AM & PM peak hours.

The Project's contribution to the LOS deficiencies at the above-listed intersections would be cumulatively considerable, excepting AM peak hour impacts at Intersections #14, #31, and #33, and PM peak hour impacts at #1, #11, #12, #29, and #47. The Project would send less than 50 trips to Intersections #14, #31, and #33 during the AM peak hour; therefore, the Project's contribution to the AM peak hour deficiencies at Intersections #14, #31, and #33 would not be cumulatively considerable. Likewise, the Project would send

less than 50 trips to Intersections #1, #11, #12, #29, and #47 during the PM peak hour; therefore, the Project's contribution to the PM peak hour deficiencies at Intersections #1, #11, #12, #29, and #47 would not be cumulatively considerable.

With Limonite Avenue Extension

Table 4.14-20 summarizes the LOS of Study Area intersections during the AM and PM peak hours under Horizon Year traffic conditions *with* the Limonite Avenue extension. Under the Horizon Year scenario *with* the Limonite Avenue extension, the Project's cumulatively considerable impacts would the identical to the Project's cumulatively considerable impacts under the Horizon Year scenario *without* the Limonite Avenue extension, as described above, with the addition of cumulatively considerable AM peak hour impacts at the Meadow Valley Avenue/Kimball Avenue intersection (Intersection #27).

❑ Roadway Segment Operations Analysis

All roadway segments in the Study Area would operate at deficient LOS during Horizon Year traffic conditions (both *with* and *without* the Limonite Avenue extension), as summarized in Table 4.14-21 and Table 4.14-22. The Project's contribution to the LOS deficiencies along Study Area roadway segments would be cumulatively considerable.

Threshold b:	***Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?***

The Project's potential effects to all Study Area intersections, including *CMP* intersections, were disclosed under Threshold "a." In summary, the Project would not result in any direct impacts to any *San Bernardino County CMP* or *Riverside County CMP* intersections but would result in cumulatively considerable impacts at the following *CMP* intersections:

San Bernardino County CMP

- Intersection #1 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #2 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #4 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #7 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #33 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #34 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions; and

- Intersection #35 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions.

Riverside County CMP

- Intersection #41 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #42 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #43 during Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #45 during Opening Year and Horizon Year (with and without the Limonite Avenue extension) traffic conditions;
- Intersection #46 during Horizon Year (with and without the Limonite Avenue extension) traffic conditions; and
- Intersection #47 during Horizon Year (with and without the Limonite Avenue extension) traffic conditions.

The remainder of the analysis under this Threshold will focus on the Project's potential effects to regional freeway facilities that are part of the *San Bernardino County CMP* and *Riverside County CMP* freeway network, including SR-60, SR-71, SR-83, and I-15 mainline segments and on/off-ramps.

A. Short-Term Construction CMP Impact Analysis

❑ Freeway Mainline Segments

As previously disclosed in Table 4.14-7, one (1) freeway mainline segment in the Project Study Area operates at a deficient LOS under existing conditions (i.e., without Project-related construction or operational traffic): the I-15 Southbound segment south of Limonite Avenue (LOS E in the AM peak hour). Project construction traffic is not expected to exacerbate the existing peak hour freeway mainline segment deficiency listed above or cause any new peak hour deficiencies because Project construction peak hour traffic would be minimal (as described in detail under Threshold "a"). Impacts to freeway mainline segments during construction would be less than significant.

❑ Freeway Ramps

As shown in Table 4.14-8 and Table 4.14-9, all freeway ramps in the Project Study Area experience acceptable queuing under existing conditions but the following three (3) freeway ramp merge/diverge areas in the Project Study Area operate at a deficient LOS during the AM and/or PM peak hours:

- SR-60 Westbound off-ramp at Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Eastbound off-ramp at Euclid Avenue – LOS E in the AM peak hour; and
- I-15 Southbound off-ramp at Limonite Avenue – LOS E in the PM peak hour.

Project construction traffic is not expected to exacerbate the existing peak hour freeway ramp merge/diverge deficiencies listed above or cause any new peak hour deficiencies because Project construction peak hour traffic would be minimal (as described in detail under Threshold "a"). Impacts to freeway ramp operations during construction would be less than significant.

B. Existing plus Project CMP Impact Analysis

❑ Freeway Mainline Segments

Table 4.14-23, *Existing plus Project Freeway Mainline Analysis*, summarizes the LOS along freeway mainline segments within the Project Study Area under E+P conditions. As shown in Table 4.14-23, all Project Study Area freeway mainline segments would operate at acceptable LOS under E+P conditions with the exception of the I-15 Southbound segment located south of Limonite Avenue (which is calculated to operate at LOS E in the AM peak hour).

As disclosed earlier in Subsection 4.14.2, the I-15 Southbound segment located south of Limonite Avenue operates at unacceptable LOS under existing conditions; the Project would not cause the deficiency at this I-15 Southbound segment and, therefore, the Project's direct impacts would be less than significant. Additionally, the Project would contribute fewer than 50 peak hour trips to the I-15 Southbound segment located south of Limonite Avenue; therefore, the Project would not contribute substantial traffic to the LOS deficiency at this freeway mainline segment and the Project's impact would not be cumulatively considerable.

The freeway mainline segments located in the Project Study Area, listed in Table 4.14-23, include the segments that would receive the highest concentration of traffic from the Project. However, Project traffic does not stop at the limits of the Project Study Area. Rather, Project-related traffic continues to travel throughout the southern California region along the State Highway System, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to *San Bernardino County CMP* and *Riverside County CMP* segments of I-15, SR-60, SR-71, and SR-91 located outside of the Project's Study Area, as well as freeway segments located outside of San Bernardino County, such as I-5, I-15, I-215, I-110, I-405, and I-710, among others. All State Highway System facilities that operate at an unacceptable LOS are considered to be cumulatively impacted; however, because the Project would contribute fewer than 50 peak hour trips to any congested freeway segment beyond the Project Study Area, the Project's effect on *San Bernardino County CMP* and *Riverside County CMP* freeway facilities – and all other freeway facilities – located outside of the Study Area would not be cumulatively considerable under E+P traffic conditions.

❑ Freeway Ramps

As summarized in Table 4.14-24, all Project Study Area freeway ramps would experience acceptable queuing under E+P traffic conditions; however, as shown in Table 4.14-25, the following freeway ramps in the Project Study Area would experience deficient merge/diverge operations under E+P traffic conditions:

- SR-60 Westbound off-ramp at Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Eastbound off-ramp at Euclid Avenue – LOS E in the AM peak hour; and
- I-15 Southbound off-ramp at Limonite Avenue – LOS E in the PM peak hour.

As previously disclosed in Subsection 4.14.2, the three freeway ramps listed above experience deficient peak hour merge/diverge operations under existing conditions; therefore, the Project would not cause the LOS deficiencies at these merge/diverge areas. The Project's direct impacts would be less than significant. Additionally, the Project would contribute fewer than 50 peak hour trips to each of the above-listed freeway ramps; therefore, the Project would not contribute substantial traffic to the merge/diverge LOS deficiencies and the Project's impact would not be cumulatively considerable.

C. CMP Impact Analysis for Opening Year (2020) Traffic Conditions

❑ Freeway Mainline Segments

Table 4.14-26, *Opening Year (2020) Freeway Mainline Analysis*, summarizes the LOS along freeway mainline segments within the Project area under Opening Year conditions. As shown in Table 4.14-26, the following 12 freeway mainline segments would operate at deficient LOS under Opening Year conditions:

- SR-60 Westbound, west of Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Westbound, east of Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Westbound, west of Archibald Avenue – LOS E in the AM peak hour;
- SR-60 Eastbound, west of Euclid Avenue – LOS E in the AM peak hour;
- SR-60 Eastbound, east of Euclid Avenue – LOS E in the AM peak hour;
- SR-60 Eastbound, west of Archibald Avenue – LOS E in the AM peak hour;
- SR-60 Eastbound, east of Archibald Avenue – LOS E in the AM peak hour;
- SR-71 Northbound, south of Euclid Avenue – LOS E in the PM peak hour;
- I-15 Southbound, north of Limonite Avenue – LOS E in the AM & PM peak hours;
- I-15 Southbound, south of Limonite Avenue – LOS F in the AM peak hour & LOS E in the PM peak hour;
- I-15 Northbound, north of Limonite Avenue – LOS E in the AM peak hour; and
- I-15 Northbound, south of Limonite Avenue – LOS E in the AM & PM peak hours.

Of the freeway mainline segments listed above, the Project only would contribute more than 50 peak hour trips to one mainline segment: the SR-60 Eastbound segment located east of Archibald Avenue. The Project's contribution of traffic to the SR-60 Eastbound segment located east of Archibald Avenue would be cumulatively considerable. The Project's impacts to the remaining freeway mainline segments listed above would not be cumulatively considerable.

The freeway mainline segments located in the Project Study Area, listed in Table 4.14-26, include the segments that would receive the highest concentration of traffic from the Project. However, Project traffic does not stop at the limits of the Project Study Area. Rather, Project-related traffic continues to travel throughout the southern California region along the State Highway System, dissipating as distance from the

Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to *San Bernardino County CMP* and *Riverside County CMP* segments of I-15, SR-60, SR-71, and SR-91 located outside of the Project's study area, as well as freeway segments located outside of San Bernardino County, such as I-5, I-15, I-215, I-110, I-405, and I-710, among others. All State Highway System facilities that operate at an unacceptable LOS are considered to be cumulatively impacted; however, because the Project would contribute fewer than 50 peak hour trips to any congested freeway segment beyond the Project Study Area, the Project's effect on *San Bernardino County CMP* and *Riverside County CMP* freeway facilities – and all other freeway facilities – located outside of the Study Area would not be cumulatively considerable under Opening Year traffic conditions.

❑ Freeway Ramps

All freeway ramps in the Project study area would experience acceptable queuing under Opening Year conditions, as summarized in Table 4.14-27, *Opening Year (2020) Freeway Ramp Queuing Analysis*. Notwithstanding, as shown in Table 4.14-28, *Opening Year (2020) Freeway Ramp Merge/Diverge Analysis*, the following nine (9) freeway ramp merge/diverge areas in the Project Study Area would operate at deficient LOS during the AM and/or PM peak hours under Opening Year conditions:

- SR-60 Westbound off-ramp at Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Westbound off-ramp at Archibald Avenue – LOS E in the AM peak hour;
- SR-60 Eastbound off-ramp at Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Eastbound on-ramp at Euclid Avenue – LOS E in the AM peak hour;
- SR-60 Eastbound off-ramp at Archibald Avenue – LOS E in the AM & PM peak hours;
- I-15 Southbound off-ramp at Limonite Avenue – LOS E in the AM & PM peak hours;
- I-15 Southbound on-ramp at Limonite Avenue – LOS F in the AM peak hour & LOS E in the PM peak hour;
- I-15 Northbound on-ramp at Limonite Avenue – LOS E in the AM peak hour; and
- I-15 Northbound off-ramp at Limonite Avenue – LOS E in the AM & PM peak hours.

The Project would not contribute 50 or more peak hour trips to any of the on-ramps or off-ramps listed above under Opening Year traffic conditions; therefore, the Project's contribution to the LOS deficiencies at the above-listed freeway ramp merge/diverge areas would not be cumulatively considerable.

D. Impact Analysis for Horizon Year (2040) Traffic Conditions

❑ Freeway Mainline Segments

Table 4.14-29, *Horizon Year (2040) Freeway Mainline Analysis*, summarizes the LOS freeway mainline segments within the Project area under Horizon Year conditions. As shown in Table 4.14-29, all Project Study Area freeway mainline segments would operate at acceptable LOS under Horizon Year conditions with the exception of the following 10 segments:

- SR-60 Westbound, west of Euclid Avenue – LOS E in the PM peak hour;

- SR-60 Westbound, east of Euclid Avenue – LOS E in the PM peak hour;
- SR-60 Eastbound, west of Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Eastbound, east of Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Eastbound, west of Archibald Avenue – LOS F in the AM peak hour & LOS E in the PM peak hour;
- SR-60 Eastbound, east of Archibald Avenue – LOS E in the AM & PM peak hours;
- SR-71 Northbound, south of Euclid Avenue – LOS F in the AM & PM peak hours;
- SR-71 Southbound, south of Euclid Avenue – LOS F in the AM & PM peak hours;
- I-15 Southbound, north of Limonite Avenue – LOS E in the AM peak hour; and
- I-15 Southbound, south of Limonite Avenue – LOS F in the AM peak hour.

Of the 10 freeway mainline segments listed above, the Project only would contribute more than 50 peak hour trips to one mainline segment: the SR-60 Eastbound segment located east of Archibald Avenue. The Project's contribution of traffic to the SR-60 Eastbound segment located east of Archibald Avenue would be cumulatively considerable. The Project's impacts to the remaining freeway mainline segments listed above would not be cumulatively considerable.

The freeway mainline segments located in the Project Study Area, listed in Table 4.14-29, include the segments that would receive the highest concentration of traffic from the Project. However, Project traffic does not stop at the limits of the Project Study Area. Rather, Project-related traffic continues to travel throughout the southern California region along the State Highway System, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to *San Bernardino County CMP* and *Riverside County CMP* segments of I-15, SR-60, SR-71, and SR-91 located outside of the Project's study area, as well as freeway segments located outside of San Bernardino County, such as I-5, I-15, I-215, I-110, I-405, and I-710, among others. All State Highway System facilities that operate at an unacceptable LOS are considered to be cumulatively impacted; however, because the Project would contribute fewer than 50 peak hour trips to any congested freeway segment beyond the Project Study Area, the Project's effect on *San Bernardino County CMP* and *Riverside County CMP* freeway facilities – and all other freeway facilities – located outside of the Study Area would not be cumulatively considerable under Opening Year traffic conditions.

❑ Freeway Ramps

All freeway ramps in the Project study area would experience acceptable queuing under Opening Year conditions, as summarized in Table 4.14-30, *Horizon Year (2040) Freeway Ramp Queuing Analysis*. Notwithstanding, as shown in Table 4.14-31, *Horizon Year (2040) Freeway Ramp Merge/Diverge Analysis*, the following 10 freeway ramp merge/diverge areas in the Project Study Area would operate at deficient LOS during the AM and/or PM peak hours under Opening Year conditions

- SR-60 Westbound off-ramp at Euclid Avenue – LOS E in the AM & PM peak hours;
- SR-60 Eastbound off-ramp at Euclid Avenue – LOS E in the AM & PM peak hours;

- SR-60 Eastbound on-ramp at Euclid Avenue – LOS E in the AM peak hour;
- SR-60 Eastbound off-ramp at Archibald Avenue – LOS F in the AM peak hour & LOS E in the PM peak hour;
- SR-71 Southbound loop on-ramp at Euclid Avenue (Upstream) – LOS F in the AM & PM peak hours;
- SR-71 Southbound loop on-ramp at Euclid Avenue (Downstream) – LOS F in the AM & PM peak hours;
- SR-71 Northbound off-ramp at Euclid Avenue – LOS F in the AM & PM peak hours;
- I-15 Southbound off-ramp at Limonite Avenue – LOS E in the AM peak hour;
- I-15 Southbound on-ramp at Limonite Avenue – LOS F in the AM peak hour; and
- I-15 Northbound off-ramp at Limonite Avenue – LOS E in the AM & PM peak hours.

The Project would not contribute 50 or more peak hour trips to any of the on-ramps or off-ramps listed above under Horizon Year traffic conditions; therefore, the Project's contribution to the LOS deficiencies at the above-listed freeway ramp merge/diverge areas would not be cumulatively considerable.

Threshold c: Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The Project is proposed as a ground transport parcel sorting/distribution facility and does not entail an air travel component (e.g., runways, helipads); thus, air traffic levels in the vicinity of the Chino Airport would not be changed as a result of the Project. As previously described in EIR Section 3.0, *Project Description*, the Project would result in development of the subject property as a parcel sorting/distribution facility and would not include any component that would obstruct the flight path or interfere with flight operations at the Chino Airport. Accordingly, the Project would not have the potential to affect air traffic patterns, including an increase in traffic levels or a change in flight path location that results in substantial safety risks. No impact would occur.

Threshold d: Would the Project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

The types of traffic generated by the Project (i.e., passenger cars and trucks) would be compatible with the type of existing traffic on Project Study Area roadways. In addition, all proposed improvements within the public right-of-way would be installed in conformance with City design standards. The City of Chino Public Works Department reviewed the Project's application materials and determined that no hazardous transportation design features would be introduced by the Project. Accordingly, the proposed Project would not create or substantially increase safety hazards due to a design feature or incompatible use. The Project would result in a less-than-significant impact.

Threshold e: Would the Project result in inadequate emergency access?

The City of Chino reviewed the Project's design and confirmed that adequate access to-and-from the Project site would be provided for emergency vehicles and also that development of the Project would not interfere

with the circulation of emergency vehicles along public streets that abut the Project site (i.e., Merrill Avenue and Flight Avenue). The City of Chino also will require the Project to provide adequate paved access to-and-from the site as a condition of Project approval. Furthermore, the City of Chino will review all future Project construction drawings to ensure that adequate emergency access is maintained along abutting public streets during temporary construction activities. With required adherence to City requirements for emergency vehicle access, no impact would occur.

Threshold f: Would the Project conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The Project is proposed as a parcel sorting/distribution facility and is not expected to attract large volumes of pedestrian, bicycle, or transit traffic. Regardless, the roadway, bikeway, and pedestrian improvements proposed by the Project are consistent with the City of Chino General Plan and The Preserve Specific Plan (refer to EIR Section 3.0, *Project Description*) and would not conflict with adopted policies, plans or programs supporting alternative transportation.

4.14.7 Cumulative Impact Analysis

The analysis under Threshold "a" disclosed the Project's potential to affect the transportation network on a cumulative basis. As disclosed in the response to Threshold "a," the Project would result in cumulatively considerable impacts at numerous study area intersections under E+P, Opening Year, and Horizon Year (with and without the Limonite Avenue extension) traffic conditions.

The analysis under Threshold "b" disclosed the Project's potential to affect the *CMP* roadway network, including freeway facilities, on a cumulative basis. As disclosed in the response to Threshold "b," the Project would in cumulatively considerable impacts at *CMP* intersections and freeway mainline segments under Opening Year and Horizon Year traffic conditions.

The Project would not contribute to a significant cumulative impact under the topics discussed under Thresholds "c," "d," and "e" because the Project would not change air traffic patterns; cause or exacerbate existing transportation design safety concerns; or adversely affect emergency access.

As presented under Threshold "f," the proposed Project would not conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities and thus has no potential to contribute to a cumulative impact. The Project would have a less-than-significant cumulatively considerable impact to adopted policies and programs regarding public transit, bicycle, and pedestrian facilities, as well as a less-than-significant cumulatively considerable impact to the performance of such facilities.

4.14.8 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively Considerable Impact. The addition of Project-related traffic would contribute to LOS deficiencies at numerous Study Area intersections during Existing plus Project, Opening Year, and Horizon Year traffic conditions.

Threshold b: Cumulatively Considerable Impact. The addition of Project-related traffic would contribute to LOS deficiencies at 13 *CMP* intersections and 1 *CMP* freeway mainline segment within the Project Study Area under Existing plus Project, Opening Year and/or Horizon Year traffic conditions.

Threshold c: No Impact. There is no potential for the Project to change air traffic patterns or create substantial air traffic safety risks.

Threshold d: Less-than-Significant Impact. No significant transportation safety hazards would be introduced as a result of the proposed Project.

Threshold e: Less-than-Significant Impact. Adequate emergency access would be provided to the Project site during construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.

Threshold f: Less-than-Significant Impact. The Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities, and is designed to minimize potential conflicts with non-vehicular means of transportation.

4.14.9 Mitigation

The following mitigation measures would minimize the Project's direct impact to the local roadway and circulation network:

MM 4.14-1 Prior to issuance of an occupancy permit, the Project Applicant/Developer shall assure the improvement of the Grove Avenue/Merrill Avenue intersection as follows:

a) Install a traffic signal; and
b) Add an eastbound left turn lane.

MM 4.14-2 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall assure the improvement of the Flight Avenue/Kimball Avenue intersection as follows:

a) Install a traffic signal.

MM 4.14-3 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall assure the improvement of the Flight Avenue/Merrill Avenue intersection as follows:

a) Install a traffic signal; and
b) Re-stripe the painted median to provide a northbound left turn lane.

MM 4.14-4 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall assure the improvement of the Flight Avenue/Remington Avenue intersection as follows:

a) Install a traffic signal.

The following mitigation measures would minimize the Project's cumulative impacts to the local roadway and circulation network.

MM 4.14-5 Prior to the issuance of building permits, the Project Applicant/Developer shall comply with the applicable requirements of City of Chino Sub-Area II (The Preserve) Development Impact Fee Preserve (DIF) program, which requires fee payment to the City of Chino (less any fee credits), a portion of which is used by the City to fund the installation of road and intersection improvements to reduce traffic congestion.

MM 4.14-6 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall make a fair-share payment to the City of Chino, to be held in trust, for the intersection improvements listed in Table 7-8 of the "Chino Parcel Delivery Traffic Impact Analysis," prepared by Urban Crossroads (dated November 13, 2018) and the Project's fair-share obligations are listed in Table 1-8 of the same report. The City of Chino shall only use the funds for improving the intersections listed therein. If within five years of the date of collection of the Project's fair-share fee payment, the City of Chino has not completed the improvements or established a fair-share funding program for the specified improvements to the respective intersections, then the City of Chino shall return the funds to the Project Applicant/Developer. If, at the time of occupancy permit issuance, Limonite Avenue has been extended over the Cucamonga Creek Channel to connect Hellman Avenue and Archibald Avenue, then this mitigation measure shall be eliminated and MM 4.14-7 shall apply.

MM 4.14-7 Prior to the issuance of an occupancy permit, the Project Applicant/Developer shall make a fair-share payment to the City of Chino, to be held in trust, for the intersection improvements listed in Table 7-9 of the "Chino Parcel Delivery Traffic Impact Analysis," prepared by Urban Crossroads (dated November 13, 2018) and the Project's fair-share obligations are listed in Table 1-9 of the same report. The City of Chino shall only use the funds for improving the intersections listed therein. If within five years of the date of collection of the Project's fair-share fee payment, the City of Chino has not completed the improvements or established a fair-share funding program for the specified improvements to the respective intersections, then the City of Chino shall return the funds to the Project Applicant/Developer. This mitigation measure shall only apply if, at the time of occupancy permit issuance, Limonite Avenue has been extended over the Cucamonga Creek Channel to connect Hellman Avenue and Archibald Avenue.

The following mitigation measure would minimize the Project's cumulative impacts to freeway mainline segments:

MM 4.14-8 In the event that Caltrans prepares a valid study, as defined below, that identifies fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary undertake improvements to

SR-60 in the Project study area, then the Project Applicant/Developer shall use reasonable efforts to pay the applicable fair share amount to Caltrans.

The study shall include fair share contributions related to private and or public development based on nexus requirements contained in the Mitigation Fee Act (Govt. Code § 66000 et seq.) and 14 Cal. Code of Regs. § 15126.4(a)(4) and, to this end, the study shall recognize that development projects within the City of Chino have no fair-share payment obligation for impacts to SR-60 that are not attributable to development located within the City of Chino. The fee study shall also be compliant with Government Code § 66001(g) and any other applicable provisions of law. The study shall set forth a timeline and other relevant criteria for implementation of the recommendations contained within the study to the extent the other agencies agree to participate in the fee study program.

In the event the study has been prepared, the Project Applicant/Developer shall use reasonable efforts to pay the fair-share fee to Caltrans. If Caltrans chooses to accept the Project Applicant's/Developer's fair-share payment, Caltrans shall apply the payment to the fee program adopted by Caltrans or agreed upon by the Project Applicant/Developer and Caltrans as a result of the fair-share fee study. Caltrans shall only accept the fair-share payment if the fair-share fee study has been completed. If, within five years from the date that the first building permit is issued for the Project, Caltrans has not completed the fair share fee study, then the Project Applicant/Developer shall have no further obligation to comply with this mitigation measure.

4.14.10 Significance of Impacts After Mitigation

Threshold a: Less-than-Significant Direct Impact. Mitigation Measures (MM) MM 4.14-1 through MM 4.14-4 would require the Project Applicant/Developer to install improvements at the Grove Avenue/Merrill Avenue intersection (Intersection #18), Flight Avenue/Merrill Avenue intersection (Intersection #20), Flight Avenue/Remington Avenue intersection (Intersection #24), and Flight Avenue/Kimball Avenue intersection (Intersection #25) to address operations deficiencies caused by the Project. As summarized in Table 4.14-32, *Existing plus Project Intersection Analysis – With Mitigation*, the improvements required by MM 4.14-1 through MM 4.14-4 would ensure that Intersections #18, #20, #24, and #25 operate at acceptable LOS under E+P traffic conditions. Therefore, with the mitigation provided by this EIR, the Project's direct impacts to Intersections #18, #20, #24, and #25 would be less than significant.

Threshold a: Significant and Unavoidable Cumulative Impact. MM 4.14-5 requires the Project Applicant/Developer to contribute to the City of Chino's Development Impact Fee (DIF) program and MM 4.14-6 and MM 4.14-7 require the Project to participate in fair-share funding programs. Fund collected via MM 4.14-5 through MM 4.14-7 would be used to fund needed improvements to the local roadway system. Under CEQA, a monetary contribution to a mitigation fund is adequate mitigation if the funds are part of a reasonable plan that the relevant agency is committed to implementing.

As shown in Table 4.14-32, Table 4.14-33, and Table 4.14-34, all Study Area intersections would operate at acceptable LOS under E+P, Opening Year, and Horizon Year (with and without the Limonite Avenue extension) traffic scenarios with recommended improvements. In addition, all Project roadway segments would operate at acceptable levels with the implementation of recommended improvements (Urban Crossroads, 2018e, pp. 189-190, 230-232). However, to achieve acceptable levels of service along Study Area intersections and roadway segments, numerous improvements are required that are either: 1) not under the sole jurisdictional authority of the City of Chino (meaning the City of Chino cannot assure that the recommended improvements would be implemented); and/or 2) not included in any existing mitigation funding program to ensure a date-certain installation. Because the City of Chino cannot assure that all the recommended improvements would be implemented and/or in place at the time of need, the Project's cumulative impacts at the following intersections and roadway segments are recognized as significant and unavoidable. No other feasible mitigation measures for these cumulatively considerable impacts are available that would have a proportional nexus to the Project's impact.

Intersections

- Euclid Avenue/Riverside Drive (Intersection #4);
- Euclid Avenue/Chino Avenue (Intersection #5);
- Euclid Avenue/Schaefer Avenue (Intersection #6);
- Euclid Avenue/Edison Avenue (Intersection #7);
- Euclid Avenue/Eucalyptus Avenue (Intersection #8);
- Bon View Avenue/Merrill Avenue (Intersection #15);
- Flight Avenue/Merrill Avenue (Intersection #20);
- Baker Avenue and Van Vliet Avenue/Merrill Avenue (Intersection #26);
- Meadow Valley Avenue/Kimball Avenue (Intersection #27);
- Hellman Avenue/Merrill Avenue (Intersection #28);
- Carpenter Avenue/Merrill Avenue (Intersection #32);
- Archibald Avenue/SR-60 Westbound Ramps (Intersection #33);
- Archibald Avenue/SR-60 Eastbound Ramps (Intersection #34);
- Archibald Avenue/Riverside Drive (Intersection #35);
- Archibald Avenue/Chino Avenue (Intersection #36);
- Archibald Avenue/Schaefer Avenue (Intersection #37);
- Harrison Avenue/Limonite Avenue (Intersection #42);
- Sumner Avenue/Limonite Avenue (Intersection #43);
- Scholar Way/Limonite Avenue (Intersection #44); and
- Hamner Avenue/Limonite Avenue (Intersection #45).

Roadway Segments

- Merrill Avenue, between Euclid Avenue and Grove Avenue;
- Merrill Avenue, between Grove Avenue and Flight Avenue;
- Merrill Avenue, between Flight Avenue and Hellman Avenue.

Threshold b: Significant and Unavoidable Cumulative Impact. As described above, there is no feasible mitigation to reduce the Project's cumulatively considerable impacts to Intersections #4, #7, #33, #34, #35, #42, #43, #44, and #45 – which are *CMP* facilities – to less-than-significant levels.

All freeway facilities in the Project Study Area, including SR-60, and associated ramp merge/diverge areas and ramps, are under the jurisdiction of Caltrans. As such, the City of Chino cannot assure the construction of improvements to freeway facilities that may be needed to improve traffic flow. Furthermore, Caltrans does not have any improvement or funding mechanism in place to allow development projects to construct improvements or contribute a fair-share payment to fund future improvements and off-set cumulatively considerable traffic impacts. Accordingly, the Project's previously identified cumulatively considerable impacts to the SR-60 Eastbound segment located east of Archibald Avenue under Opening Year and Horizon Year traffic conditions would be significant and unavoidable.

Table 4.14-1 Study Area Intersection Locations

ID	Intersection Location	Jurisdiction	CMP?
1	Euclid Av. (SR-83) & SR-60 WB Ramps	Caltrans, Ontario	Yes
2	Euclid Av. (SR-83) & SR-60 EB Ramps	Caltrans, Ontario	Yes
3	Euclid Av. (SR-83) & Walnut St.	Caltrans, Ontario	Yes
4	Euclid Av. (SR-83) & Riverside Dr.	Caltrans, Chino, Ontario	Yes
5	Euclid Av. (SR-83) & Chino Av.	Caltrans, Chino, Ontario	No
6	Euclid Av. (SR-83) & Schaefer Av.	Caltrans, Chino, Ontario	No
7	Euclid Av. (SR-83) & Edison Av.	Caltrans, Chino, Ontario	Yes
8	Euclid Av. (SR-83) & Eucalyptus Av.	Caltrans, Chino, Ontario	No
9	Euclid Av. (SR-83) & Merrill Av.	Caltrans, Chino, Ontario	No
10	Euclid Av. (SR-83) & Kimball Av.	Caltrans, Chino	No
11	Euclid Av. (SR-83) & Bickmore Av.	Caltrans, Chino	No
12	Euclid Av. (SR-83) & Pine Av.	Caltrans, Chino	No
13	SR-71 NB Ramps & Euclid Av. (SR-83)	Caltrans, Chino	No
14	SR-71 SB Ramps & Euclid Av. (SR-83)	Caltrans, Chino Hills	No
15	Bon View Av. & Merrill Av.	Chino, Ontario	No
16	Rincon Meadows Av. & Kimball Av.	Chino	No
17	Mill Creek Av. & Kimball Av.	Chino	No
18	Grove Av. & Merrill Av.	Chino, Ontario	No
19	Main St. & Kimball Av.	Chino	Yes
20	Flight Av. & Merrill Av.	Chino, Ontario	No
21	Flight Av. & Driveway 1	Chino	No
22	Flight Av. & Driveway 2	Chino	No
23	Flight Av. & Driveway 3	Chino	No
24	Flight Av. & Remington Av.	Chino	No
25	Flight Av. & Kimball Av.	Chino	No
26	Baker Av./Van Vliet Av. & Merrill Av.	Chino, Ontario	No
27	Meadow Valley Av. & Kimball Av.	Chino	No
28	Hellman Av. & Merrill Av.	Chino, Ontario	No
29	Hellman Av. & Kimball Av.	Chino, Eastvale	No
30	Hellman Av. & Pine Av.	Chino, Eastvale	No
31	Hellman Av. & Chandler Av.	Chino, Eastvale	No
32	Carpenter Av. & Merrill Av.	Chino, Ontario	No
33	Archibald Av. & SR-60 WB Ramps	Caltrans, Ontario	Yes
34	Archibald Av. & SR-60 EB Ramps	Caltrans, Ontario	Yes
35	Archibald Av. & Riverside Dr.	Ontario, Ontario	Yes
36	Archibald Av. & Chino Av.	Ontario	No
37	Archibald Av. & Schaefer Av.	Ontario	No
38	Archibald Av. & Ontario Ranch Rd.	Ontario	No
39	Archibald Av. & Eucalyptus Av.	Ontario	No
40	Archibald Av. & Merrill Av.	Ontario	No
41	Archibald Av. & Limonite Av.	Eastvale	Yes
42	Harrison Av. & Limonite Av.	Eastvale	Yes
43	Sumner Av. & Limonite Av.	Eastvale	Yes
44	Scholar Wy. & Limonite Av.	Eastvale	Yes
45	Hamner Av. & Limonite Av.	Eastvale	Yes
46	I-15 SB Ramps & Limonite Av.	Caltrans, Eastvale	Yes
47	I-15 NB Ramps & Limonite Av.	Caltrans, Jurupa Valley	Yes

Source: (Urban Crossroads, 2018e, Table 1-1)

Table 4.14-2 Study Area Roadway Segments

ID	Street	Segment	Jurisdiction
1	Merrill Avenue	Euclid Avenue (SR-83) to Grove Avenue	Chino, Ontario
2		Grove Avenue to Flight Avenue	Chino, Ontario
3		Flight Avenue to Hellman Avenue	Chino, Ontario

Source: (Urban Crossroads, 2018e, Table 1-2)

Table 4.14-3 Study Area Freeway Mainline Segments

ID	Freeway Mainline Segments
1	SR-60 Freeway – Westbound, West of Euclid Av. (SR-83)
2	SR-60 Freeway – Westbound, East of Euclid Av. (SR-83)
3	SR-60 Freeway – Westbound, West of Archibald Av.
4	SR-60 Freeway – Westbound, East of Archibald Av.
5	SR-60 Freeway – Eastbound, West of Euclid Av. (SR-83)
6	SR-60 Freeway – Eastbound, East of Euclid Av. (SR-83)
7	SR-60 Freeway – Eastbound, West of Archibald Av.
8	SR-60 Freeway – Eastbound, East of Archibald Av.
9	SR-71 Freeway – Southbound, South of Euclid Av. (SR-83)
10	SR-71 Freeway – Northbound, South of Euclid Av. (SR-83)
11	I-15 Freeway – Southbound, North of Limonite Av.
12	I-15 Freeway – Southbound, South of Limonite Av.
13	I-15 Freeway – Northbound, North of Limonite Av.
14	I-15 Freeway – Northbound, South of Limonite Av.

Source: (Urban Crossroads, 2018e, Table 1-3)

Table 4.14-4 Study Area Freeway Merge/Diverge Ramp Junctions

ID	Freeway Merge/Diverge Ramp Junctions
1	SR-60 Freeway – Westbound, On-Ramp at Euclid Av. (SR-83) (Merge)
2	SR-60 Freeway – Westbound, Off-Ramp at Euclid Av. (SR-83) (Diverge)
3	SR-60 Freeway – Westbound, On-Ramp at Archibald Av. (Merge)
4	SR-60 Freeway – Westbound, Off-Ramp at Archibald Av. (Diverge)
5	SR-60 Freeway – Eastbound, Off-Ramp at Euclid Av. (SR-83) (Diverge)
6	SR-60 Freeway – Eastbound, On-Ramp at Euclid Av. (SR-83) (Merge)
7	SR-60 Freeway – Eastbound, Off-Ramp at Archibald Av. (Diverge)
8	SR-60 Freeway – Eastbound, On-Ramp at Archibald Av. (Merge)
9	SR-71 Freeway – Southbound, Loop On-Ramp at Euclid Av. (SR-83) (Upstream) (Merge)
10	SR-71 Freeway – Southbound, Loop On-Ramp at Euclid Av. (SR-83) (Downstream) (Merge)
11	SR-71 Freeway – Northbound, Off-Ramp at Euclid Av. (SR-83) (Diverge)
12	I-15 Freeway – Southbound, Off-Ramp at Limonite Av. (Diverge)
13	I-15 Freeway – Southbound, On-Ramp at Limonite Av. (Merge)
14	I-15 Freeway – Northbound, On-Ramp at Limonite Av. (Merge)
15	I-15 Freeway – Northbound, Off-Ramp at Limonite Av. (Diverge)

Source: (Urban Crossroads, 2018e, Table 1-4)

Table 4.14-5 Existing Intersection Levels of Service

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		Acceptable LOS
			Northbound			Southbound			Eastbound			Westbound							
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
1	Euclid Av. (SR-83) / SR-60 WB Ramps	TS	1	2	0	0	2	1	0	0	0	1	1	1	39.2	30.1	D	C	D
2	Euclid Av. (SR-83) / SR-60 EB Ramps	TS	0	2	1	1	2	0	1	1	0	0	0	0	**97.4**	25.3	F	C	D
3	Euclid Av. (SR-83) / Walnut St.	TS	1	3	d	2	3	1	1	2	0	1	2	0	20.4	21.6	C	C	E
4	Euclid Av. (SR-83) / Riverside Dr.	TS	1	2	1	1	2	1>	1	1	0	1	2	d	46.2	54.2	D	D	D
5	Euclid Av. (SR-83) / Chino Av.	TS	1	2	1	1	2	1	1	1	1	0	1	0	20.0	19.1	C	B	D
6	Euclid Av. (SR-83) / Schaefer Av.	TS	1	2	1	1	2	1	1	1	1	1	1	0	32.9	39.2	C	D	D
7	Euclid Av. (SR-83) / Edison Av.	TS	1	2	1	1	2	1	1	1	1	1	1	0	41.1	28.8	D	C	D
8	Euclid Av. (SR-83) / Eucalyptus Av.	TS	1	2	1	1	2	1	1	1	1	1	1	0	12.9	10.0	B	A	D
9	Euclid Av. (SR-83) / Merrill Av.	TS	1	2	1	1	2	0	0	1	0	0	1	0	25.4	22.8	C	C	D
10	Euclid Av. (SR-83) / Kimball Av.	TS	1	2	1>	2	2	1>	2	2	0	1	2	0	27.9	27.3	C	C	D
11	Euclid Av. (SR-83) / Bickmore Av.	TS	1	2	0	1	2	1	1	1	1	1	1	0	19.0	13.1	B	B	D
12	Euclid Av. (SR-83) / Pine Av.	TS	1	2	1>	1	2	0	1	1	1	2	1	0	37.0	52.6	D	D	D
13	SR-71 NB Ramps / Euclid Av. (SR-83)	TS	2	0	1>>	0	0	0	0	2	1>>	1	2	0	39.1	28.8	D	C	D
14	SR-71 SB Ramps / Euclid Av. (SR-83)	TS	1	0	1	1	1	1	0	2	0	1	2	1>>	35.8	23.1	D	C	D
15	Bon View Av. / Merrill Av.	CSS	0	0	0	0	1	0	0	1	0	0	1	0	12.3	13.1	B	B	D
16	Rincon Meadows Av. / Kimball Av.	TS	1	0	1	0	0	0	0	2	0	1	1	0	12.3	10.9	B	B	D
17	Mill Creek Av. / Kimball Av.	TS	1	0	1	0	0	0	0	2	0	1	1	0	14.6	11.4	B	B	D
18	Grove Av. / Merrill Av.	AWS	0	0	0	0	1	0	0	1	0	0	1	0	20.5	18.2	C	C	D
19	Main St. / Kimball Av.	TS	1	0	1	0	0	0	0	2	0	1	1	0	13.6	12.1	B	B	D
20	Flight Av. / Merrill Av.	CSS	0	1	0	0	0	0	0	1	1	1	1	0	29.4	18.0	D	C	D
21	Flight Av. / Driveway 1		Future Intersection																D
22	Flight Av. / Driveway 2		Future Intersection																D
23	Flight Av. / Driveway 3		Future Intersection																D
24	Flight Av. / Remington Av.	AWS	0	1	0	1	1	0	0	0	0	0	1	0	8.9	8.7	A	A	D
25	Flight Av. / Kimball Av.	CSS	0	1	0	0	1	0	1	2	0	1	1	0	32.5	26.8	D	D	D
26	Baker Av./Van Vliet Av. / Merrill Av.	CSS	0	1	0	0	0	0	0	1	1	1	1	0	12.0	13.5	B	B	D
27	Meadow Valley Av. / Kimball Av.	CSS	0	1	0	0	0	0	0	2	0	1	1	0	16.9	15.2	C	C	D
28	Hellman Av. / Merrill Av.		Future Intersection																D
29	Hellman Av. / Kimball Av.	AWS	1	0	0	0	0	0	0	0	1	0	0	0	**83.6**	**55.3**	F	F	D
30	Hellman Av. / Pine Av.	TS	2	2	1	2	2	1	2	3	1>	2	3	1>	21.0	23.7	C	C	D
31	Hellman Av. / Chandler Av.	TS	0	1	1	1	1	0	0	0	0	1	0	1	11.1	9.2	B	A	D
32	Carpenter Av. / Merrill Av.	CSS	0	1	0	0	1	0	0	1	0	0	1	0	18.1	16.5	C	C	D
33	Archibald Av. / SR-60 WB Ramps	TS	1	3	0	0	4	0	0	0	0	0	1	1	19.7	32.6	B	C	D
34	Archibald Av. / SR-60 EB Ramps	TS	0	4	0	1	3	0	0	1	1	0	0	0	30.7	38.5	C	D	D
35	Archibald Av. / Riverside Dr.	TS	1	3	0	1	3	0	1	2	d	1	2	d	41.6	46.7	D	D	E
36	Archibald Av. / Chino Av.	TS	1	3	0	1	2	0	1	1	0	1	1	1	15.4	17.0	B	B	E
37	Archibald Av. / Schaefer Av.		Future Intersection																E
38	Archibald Av. / Ontario Ranch Rd.	TS	1	2	1	1	2	1	2	2	1>>	2	1	1	28.2	26.3	C	C	E
39	Archibald Av. / Eucalyptus Av.	TS	0	2	0	1	2	0	0	0	0	0	1	0	4.6	1.3	A	A	E
40	Archibald Av. / Merrill Av.	TS	1	2	1	2	2	d	1	1	1	1	1	1	27.1	24.6	C	C	E
41	Archibald Av. / Limonite Av.	TS	0	1	1>	1	1	0	0	0	0	1	0	1>	36.4	39.8	D	D	D

Table 4.14-5 Existing Intersection Levels of Service (cont.)

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		Acceptable LOS
			Northbound			Southbound			Eastbound			Westbound							
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
42	Harrison Av. / Limonite Av.	TS	1	1	1	1	1	0	1	3	d	1	2	1	21.8	17.7	C	B	D
43	Sumner Av. / Limonite Av.	TS	1	2	0	1	2	0	2	3	0	2	3	1	17.8	16.3	B	B	D
44	Scholar Wy. / Limonite Av.	TS	1	1	1	1	2	1	1	2	1	1	2	1	18.5	14.7	B	B	D
45	Hamner Av. / Limonite Av.	TS	2	3	1	2	2	1	2	3	1	2	2	1	30.5	33.3	C	C	D
46	I-15 SB Ramps / Limonite Av.	TS	0	0	0	1	1	1	0	2	1	2	2	0	21.6	24.4	C	C	D
47	I-15 NB Ramps / Limonite Av.	TS	1	1	1	0	0	0	2	2	0	0	2	1	25.2	24.7	C	C	D

BOLD = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d = Defacto Right Turn Lane
[2]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
[3]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal
Source: (Urban Crossroads, 2018e, Table 3-1)

Table 4.14-6 Existing Roadway Segment Level of Service

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2017	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Merrill Avenue	Euclid Av. (SR-83) to Grove Av.	2U	14,000	6,759	0.48	A	D
2		Grove Av. to Flight Av.	2U	14,000	7,837	0.56	A	D
3		Flight Av. to Hellman Av.	2U	14,000	7,393	0.53	A	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]These maximum roadway capacities have been obtained from the City of Chino's General Plan (Table 4.13-1)
[2]V/C = Volume to Capacity Ratio
[3]LOS = Level of Service
Source: (Urban Crossroads, 2018e,Table 3-2)

Table 4.14-7 Existing Freeway Mainline Levels of Service

Freeway	Direction[1]	Mainline Segment	Lanes[2]	Volume		Truck %	Truck %	Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-60	WB	West of Euclid Av. (SR-83)	4	7,003	6,922	12%	8%	32.4	30.9	D	D
		East of Euclid Av. (SR-83)	4	6,994	7,186	13%	8%	32.6	32.8	D	D
		West of Archibald Av.	4	6,677	6,094	3%	3%	28.2	25.0	D	C
		East of Archibald Av.	5	6,710	5,836	3%	2%	21.4	18.3	C	C
	EB	West of Euclid Av. (SR-83)	4	6,964	6,310	3%	6%	30.0	26.6	D	D
		East of Euclid Av. (SR-83)	4	7,304	6,370	4%	6%	32.6	27.0	D	D
		West of Archibald Av.	4	6,818	6,198	4%	3%	29.3	25.5	D	C
		East of Archibald Av.	4	6,633	6,308	4%	2%	28.2	25.9	D	C
SR-71	SB	South of Euclid Av. (SR-83)	2	1,727	3,088	8%	5%	13.9	25.7	B	C
	NB	South of Euclid Av. (SR-83)	3	2,425	3,305	2%	1%	12.7	17.2	B	B
I-15	SB	North of Limonite Av.	3	5,180	5,302	6%	7%	30.3	31.7	D	D
		South of Limonite Av.	3	5,785	5,217	6%	7%	**36.4**	30.9	**E**	D
	NB	North of Limonite Av.	3	5,535	4,828	2%	2%	32.6	26.7	D	D
		South of Limonite Av.	3	4,951	5,239	2%	2%	27.6	29.9	D	D

BOLD = Unacceptable Level of Service
[1]NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound
[2]Number of lanes are in the specified direction and is based on existing conditions
[3]Density is measured by passenger cars per mile per lane (pc/mi/in)
[4]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 3-4)

Table 4.14-8 Existing Freeway Ramp Queuing Summary

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)[3]		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM
Euclid Avenue (SR-83) / SR-60 WB Ramps	WBL	400	358 [2]	382 [2]	Yes	Yes
	WBL/T/R	1,430	368 [2]	314 [2]	Yes	Yes
	WBR	400	165	220 [2]	Yes	Yes
Euclid Avenue (SR-83) / SR-60 EB Ramps	EBL	900	435 [2]	410 [2]	Yes	Yes
	EBL/R	1,270	537 [2]	278 [2]	Yes	Yes
SR-71 NB Ramps / Euclid Avenue (SR-83)	NBL	1,745	25	36	Yes	Yes
	NBR	420	113	894 [2]	Yes	Yes[3]
SR-71 SB Ramps / Euclid Avenue (SR-83)	SBL	1,100	236	213	Yes	Yes
	SBL/T	1,560	231	208	Yes	Yes
	SBR	255	0	0	Yes	Yes
Archibald Avenue/ SR-60 WB Ramps	WBL/T	1,389	311 [2]	336 [2]	Yes	Yes
	WBR	250	429 [2]	54	Yes[3]	Yes
Archibald Avenue/ SR-60 EB Ramps	EBL/T	1,268	394 [2]	92	Yes	Yes
	EBR	350	137	511 [2]	Yes	Yes[3]
I-15 SB Ramps / Limonite Avenue	SBL	400	178	188	Yes	Yes
	SBL/T/R	400	85	240	Yes	Yes
	SBR	1,200	65	218	Yes	Yes
I-15 NB Ramps / Limonite Avenue	NBL	450	214 [2]	350	Yes	Yes
	NBL/T/R	1,235	125	250	Yes	Yes
	NBR	400	62	235	Yes	Yes

[1]Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.
[2]95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
[3]Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-60, SR-71, or I-15 Freeway mainline.
Source: (Urban Crossroads, 2018e, Table 3-3)

Table 4.14-9 Existing Freeway Ramp Merge/Diverge Levels of Service

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[2]	LOS[4]
SR-60	WB	On-Ramp at Euclid Av. (SR-83)	4	29.2	D	28.1	D
		Off-Ramp at Euclid Av. (SR-83)	4	**37.1**	**E**	**38.0**	**E**
		On-Ramp at Archibald Av.	4	26.7	C	25.3	C
		Off-Ramp at Archibald Av.	5	30.1	D	27.5	C
	EB	Off-Ramp at Euclid Av. (SR-83)	4	**35.2**	**E**	32.2	D
		On-Ramp at Euclid Av. (SR-83)	4	33.1	D	27.9	C
		Off-Ramp at Archibald Av.	4	34.4	D	31.5	D
		On-Ramp at Archibald Av.	4	25.7	C	25.4	C
SR-71	SB	Loop On-Ramp at Euclid Av. (SR-83) (Upstream)	2	15.3	B	26.1	C
		Loop On-Ramp at Euclid Av. (SR-83) (Downstream)	2	15.3	B	26.1	C
	NB	Off-Ramp at Euclid Av. (SR-83)	3	21.3	C	27.3	C
I-15	SB	Off-Ramp at Limonite Av.	3	33.8	D	**35.0**	**E**
		On-Ramp at Limonite Av.	3	34.6	D	30.8	D
	NB	On-Ramp at Limonite Av.	3	32.5	D	27.6	C
		Off-Ramp at Limonite Av.	3	32.3	D	34.6	D

BOLD = Unacceptable Level of Service
[1]NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound
[2]Number of lanes are in the specified direction and is based on existing conditions.
[3]Density is measured by passenger cars per mile per lane (pc/mi.ln)
Source: (Urban Crossroads, 2018e, Table 3-5)

Table 4.14-10 Signalized Intersection LOS Thresholds

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F	F

Source: (Urban Crossroads, 2018e, Table 2-1)

Table 4.14-11 Unsignalized Intersection LOS Thresholds

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: (Urban Crossroads, 2018e, Table 2-2)

Table 4.14-12 Freeway Mainline LOS Thresholds

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1]pc/mi/ln = passenger cars per mile per lane. Source: HCM 2010
Source: (Urban Crossroads, 2018e, Table 2-4)

Table 4.14-13 Freeway Ramp Junction Merge/Diverge LOS Thresholds

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1]pc/mi/ln = passenger cars per mile per lane. Source: HCM 2010
Source: (Urban Crossroads, 2018e, Table 2-5)

Table 4.14-14 Project Trip Generation Summary

Land Use	Units[1]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Trip Generation Rates (Actual Vehicles)									
Parcel Delivery[2]	TSF	--	0.373	0.662	1.034	0.358	0.300	0.658	8.199
Passenger Cars			0.351	0.304	0.655	0.092	0.268	0.360	5.548
2-Axle Trucks			0.016	0.353	0.369	0.235	0.004	0.239	1.633
3-Axle Trucks			0.002	0.004	0.005	0.020	0.018	0.038	0.604
4-Axle+ Trucks			0.004	0.002	0.005	0.011	0.011	0.022	0.414
Trip Generation Rates (PCE)									
Parcel Delivery[2]	TSF	--	0.373	0.662	1.034	0.358	0.300	0.658	8.199
Passenger Cars			0.351	0.304	0.655	0.092	0.268	0.360	5.548
2-Axle Trucks (PCE = 1.5)			0.024	0.529	0.553	0.353	0.005	0.358	2.449
3-Axle Trucks (PCE = 2.0)			0.004	0.007	0.011	0.040	0.036	0.076	1.208
4-Axle+ Trucks (PCE = 3.0)			0.011	0.005	0.016	0.033	0.033	0.065	1.242

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Trip Generation Summary (Actual Vehicles)									
Parcel Delivery	476.285	TSF							
Passenger Cars:			167	145	312	44	127	171	2,642
Truck Trips:									
2-Axle:			8	168	176	112	2	114	778
3-Axle:			1	2	3	9	9	18	288
4+-Axle:			2	1	3	5	5	10	197
- Net Truck Trips (Actual Trucks)			*11*	*171*	*182*	*126*	*16*	*142*	*1,263*
TOTAL NET TRIPS (Actual Vehicles)[3]			***178***	***316***	***494***	***170***	***143***	***313***	***3,905***
Trip Generation Summary (PCE)									
Parcel Delivery	476.285	TSF							
Passenger Cars:			167	145	312	44	127	171	2,642
Truck Trips:									
2-Axle:			12	252	264	168	3	171	1,167
3-Axle:			2	3	5	19	17	36	575
4+-Axle:			5	3	8	16	16	31	592
- Net Truck Trips (PCE)			*19*	*258*	*277*	*203*	*36*	*238*	*2,334*
TOTAL NET TRIPS (PCE)[3]			***186***	***403***	***589***	***247***	***163***	***409***	***4,976***

[1]TSF = thousand square feet

[2]Trip generation based on empirical data collected (see Table 4-1). Existing facility surveyed is 276,507 square feet.

[3]TOTAL NET TRIPS (Actual Vehicles/PCE) = Passenger Cars + Net Truck Trips (Actual Trucks/PCE).

Source: (Urban Crossroads, 2018e, Table 4-2)

Table 4.14-15 Existing plus Project Intersection Analysis

#	Intersection	Traffic Control[2]	Existing (2017)				E+P				Acceptable LOS	Significant Impact?[3]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service			
			AM	PM	AM	PM	AM	PM	AM	PM		
1	Euclid Av. (SR-83) / SR-60 WB Ramps	TS	39.2	30.1	D	C	50.2	30.5	D	C	D	No
2	Euclid Av. (SR-83) / SR-60 EB Ramps	TS	**97.4**	25.3	**F**	C	**97.5**	27.5	**F**	C	D	No
3	Euclid Av. (SR-83) / Walnut St.	TS	20.4	21.6	C	C	20.7	21.9	C	C	E	No
4	Euclid Av. (SR-83) / Riverside Dr.	TS	46.2	54.2	D	D	48.8	54.9	D	D	D	No
5	Euclid Av. (SR-83) / Chino Av.	TS	20.0	19.1	C	B	20.7	19.6	C	B	D	No
6	Euclid Av. (SR-83) / Schaefer Av.	TS	32.9	39.2	C	D	34.7	40.6	C	D	D	No
7	Euclid Av. (SR-83) / Edison Av.	TS	41.1	28.8	D	C	43.4	31.3	D	C	D	No
8	Euclid Av. (SR-83) / Eucalyptus Av.	TS	12.9	10.0	B	A	14.4	10.3	B	B	D	No
9	Euclid Av. (SR-83) / Merrill Av.	TS	25.4	22.8	C	C	49.8	31.6	D	C	D	No
10	Euclid Av. (SR-83) / Kimball Av.	TS	27.9	27.3	C	C	28.1	28.2	C	C	D	No
11	Euclid Av. (SR-83) / Bickmore Av.	TS	19.0	13.1	B	B	19.1	13.1	B	B	D	No
12	Euclid Av. (SR-83) / Pine Av.	TS	37.0	52.6	D	D	39.0	53.1	D	D	D	No
13	SR-71 NB Ramps / Euclid Av. (SR-83)	TS	39.1	28.8	D	C	38.0	38.0	D	C	D	No
14	SR-71 SB Ramps / Euclid Av. (SR-83)	TS	35.8	23.1	D	C	35.8	23.9	D	C	D	No
15	Bon View Av. / Merrill Av.	CSS	12.3	13.1	B	B	14.4	14.1	B	B	D	No
16	Rincon Meadows Av. / Kimball Av.	CSS	12.3	10.9	B	B	12.7	10.9	B	B	D	No
17	Mill Creek Av. / Kimball Av.	TS	14.6	11.4	B	B	14.9	11.4	B	B	D	No
18	Grove Av. / Merrill Av.	AWS	20.5	18.2	C	C	**61.6**	34.0	**F**	D	D	**Yes**
19	Main St. / Kimball Av.	TS	13.6	12.1	B	B	13.9	12.1	B	B	D	No
20	Flight Av. / Merrill Av.	CSS/**TS**	29.4	18.0	D	C	15.3	17.8	B	B	D	**Yes**
21	Flight Av. / Driveway 1	--/**CSS**	Future Intersection				14.9	13.5	B	B	D	No
22	Flight Av. / Driveway 2	--/**CSS**	Future Intersection				10.9	11.6	B	B	D	No
23	Flight Av. / Driveway 3	--/**CSS**	Future Intersection				10.9	11.7	B	B	D	No
24	Flight Av. / Remington Av.	AWS/**TS**	8.9	8.7	A	A	15.0	10.7	B	B	D	No
25	Flight Av. / Kimball Av.	CSS	32.5	26.8	D	D	**43.1**	33.9	**E**	D	D	**Yes**
26	Baker Av./Van Vliet Av. / Merrill Av.	CSS	12.0	13.5	B	B	13.7	15.0	B	C	D	No
27	Meadow Valley Av. / Kimball Av.	CSS	16.9	15.2	C	C	15.3	15.5	C	C	D	No
28	Hellman Av. / Merrill Av.		Future Intersection				Future Intersection				D	No
29	Hellman Av. / Kimball Av.	AWS	**83.6**	**55.3**	**F**	**F**	**>100.0**	**65.1**	**F**	**F**	D	**Yes**
30	Hellman Av. / Pine Av.	TS	21.0	23.7	C	C	21.1	24.0	C	C	D	No
31	Hellman Av. / Chandler Av.	TS	11.1	9.2	B	A	12.0	9.5	B	A	D	No
32	Carpenter Av. / Merrill Av.	CSS	18.1	16.5	C	C	26.1	21.0	D	C	D	No
33	Archibald Av. / SR-60 WB Ramps	TS	19.7	32.6	B	C	19.9	36.1	B	D	D	No
34	Archibald Av. / SR-60 EB Ramps	TS	30.7	38.5	C	D	31.8	39.0	C	D	D	No
35	Archibald Av. / Riverside Dr.	TS	41.6	46.7	D	D	43.4	48.0	D	D	E	No
36	Archibald Av. / Chino Av.	TS	15.4	17.0	B	B	15.7	17.8	B	B	E	No
37	Archibald Av. / Schaefer Av.		Future Intersection				Future Intersection				E	No
38	Archibald Av. / Ontario Ranch Rd.	TS	28.2	26.3	C	C	29.5	27.3	C	C	E	No
39	Archibald Av. / Eucalyptus Av.	TS	4.6	1.3	A	A	4.9	1.3	A	A	E	No
40	Archibald Av. / Merrill Av.	TS	27.1	24.6	C	C	38.7	34.9	D	C	E	No
41	Archibald Av. / Limonite Av.	TS	36.4	39.8	D	D	42.6	43.2	D	D	D	No

Table 4.14-15 Existing plus Project Intersection Analysis (cont.)

#	Intersection	Traffic Control[2]	Existing (2017)				E+P				Acceptable LOS	Significant Impact?[3]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service			
			AM	PM	AM	PM	AM	PM	AM	PM		
42	Harrison Av. / Limonite Av.	TS	21.8	17.7	C	B	21.9	18.2	C	B	D	No
43	Sumner Av. / Limonite Av.	TS	17.8	16.3	B	B	17.9	16.7	B	B	D	No
44	Scholar Wy. / Limonite Av.	TS	18.5	14.7	B	B	18.8	15.0	B	B	D	No
45	Hamner Av. / Limonite Av.	TS	30.5	33.3	C	C	31.0	36.4	C	D	D	No
46	I-15 SB Ramps / Limonite Av.	TS	21.6	24.4	C	C	21.5	27.3	C	C	D	No
47	I-15 NB Ramps / Limonite Av.	TS	25.2	24.7	C	C	25.9	25.0	C	C	D	No

BOLD = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
[2]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement
[3]Impact is significant if the pre-project condition is at or better than LOS D (or acceptable LOS) and the project-generated traffic causes deterioration below acceptable levels, a deficiency is deemed to occur. However, if the pre-project condition is already below LOS D (or acceptable LOS), the Project will be responsible for mitigating its impact to a LOS equal to or better than it was without the Project.
Source: (Urban Crossroads, 2018e, Table 5-1)

Table 4.14-16 Existing plus Project Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2017	V/C[2]	LOS[3]	Acceptable LOS[3]	E+P	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Merrill Avenue	Euclid Av. (SR-83) to Grove Av.	2U	14,000	6,759	0.48	A	D	8,645	0.62	B	D
2		Grove Av. to Flight Av.	2U	14,000	7,837	0.56	A	D	9,881	0.71	C	D
3		Flight Av. to Hellman Av.	2U	14,000	7,393	0.53	A	D	7,869	0.56	A	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]These maximum roadway capacities have been obtained from the City of Chino's General Plan (Table 4.13-I).
[2]V/C = Volume to Capacity Ratio
[3]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 5-2)

Table 4.14-17 Opening Year (2020) Intersection Analysis

#	Intersection	Traffic Control[2]	2020 Without Project				2020 With Project				Acceptable LOS
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Euclid Av. (SR-83) / SR-60 WB Ramps	TS	**98.3**	**113.7**	**F**	**F**	**114.1**	**118.3**	**F**	**F**	D
2	Euclid Av. (SR-83) / SR-60 EB Ramps	TS	**>200.0**	51.3	**F**	D	**>200.0**	**57.6**	**F**	**E**	D
3	Euclid Av. (SR-83) / Walnut St.	TS	27.8	37.4	C	D	28.7	39.1	C	D	E
4	Euclid Av. (SR-83) / Riverside Dr.[3]	TS	**148.3**	**179.9**	**F**	**F**	**159.7**	**187.0**	**F**	**F**	D
5	Euclid Av. (SR-83) / Chino Av.	TS	**91.4**	**116.8**	**F**	**F**	**99.1**	**123.5**	**F**	**F**	D
6	Euclid Av. (SR-83) / Schaefer Av.	TS	**195.7**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
7	Euclid Av. (SR-83) / Edison Av.	TS	**133.5**	**185.1**	**F**	**F**	**150.8**	**196.4**	**F**	**F**	D
8	Euclid Av. (SR-83) / Eucalyptus Av.	TS	33.1	31.2	C	C	38.4	35.4	D	D	D
9	Euclid Av. (SR-83) / Merrill Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
10	Euclid Av. (SR-83) / Kimball Av.[3]	TS	**109.8**	**107.9**	**F**	**F**	**110.3**	**115.2**	**F**	**F**	D
11	Euclid Av. (SR-83) / Bickmore Av.	TS	**74.0**	31.6	**E**	C	**77.7**	32.6	**E**	C	D
12	Euclid Av. (SR-83) / Pine Av.	TS	**90.5**	**100.5**	**F**	**F**	**93.4**	**103.1**	**F**	**F**	D
13	SR-71 NB Ramps / Euclid Av. (SR-83)	TS	46.2	38.7	D	D	49.7	39.1	D	D	D
14	SR-71 SB Ramps / Euclid Av. (SR-83)	TS	32.4	19.0	C	B	32.5	19.0	C	B	D
15	Bon View Av. / Merrill Av.	CSS	34.3	**86.7**	D	**F**	**46.8**	**>100.0**	**E**	**F**	D
16	Rincon Meadows Av. / Kimball Av.	TS	10.2	13.4	B	B	10.3	13.6	B	B	D
17	Mill Creek Av. / Kimball Av.	TS	12.1	12.8	B	B	12.2	12.9	B	B	D
18	Grove Av. / Merrill Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
19	Main St. / Kimball Av.	TS	13.1	12.9	B	B	13.2	13.0	B	B	D
20	Flight Av. / Merrill Av.	CSS/**TS**	**>100.0**	**>100.0**	**F**	**F**	**156.9**	**162.2**	**F**	**F**	D
21	Flight Av. / Driveway 1	--/**CSS**	Future Intersection				15.2	13.7	C	B	D
22	Flight Av. / Driveway 2	--/**CSS**	Future Intersection				11.0	11.8	B	B	D
23	Flight Av. / Driveway 3	--/**CSS**	Future Intersection				11.0	11.9	B	B	D
24	Flight Av. / Remington Av.	AWS/**TS**	10.3	10.0	B	B	19.6	11.3	B	B	D
25	Flight Av. / Kimball Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
26	Baker Av./Van Vliet Av. / Merrill Av.	CSS	34.6	**50.4**	D	**F**	32.8	**61.5**	D	**F**	D
27	Meadow Valley Av. / Kimball Av.[4]	CSS	18.9	17.0	C	C	20.0	17.4	C	C	D
28	Hellman Av. / Merrill Av.[4]	**TS**	**121.2**	**131.4**	**F**	**F**	**150.8**	**147.9**	**F**	**F**	D
29	Hellman Av. / Kimball Av.[4]	AWS	22.3	25.3	C	D	23.9	26.9	C	D	D
30	Hellman Av. / Pine Av.	TS	22.8	20.8	C	C	22.9	21.0	C	C	D
31	Hellman Av. / Chandler Av.	TS	17.4	11.3	B	B	19.8	11.6	B	B	D
32	Carpenter Av. / Merrill Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
33	Archibald Av. / SR-60 WB Ramps	TS	**96.5**	**58.2**	**F**	**E**	**>100.0**	**71.0**	**F**	**E**	D
34	Archibald Av. / SR-60 EB Ramps	TS	**69.2**	**72.8**	**E**	**E**	**80.1**	**75.1**	**F**	**E**	D
35	Archibald Av. / Riverside Dr.	TS	**87.1**	**116.4**	**F**	**F**	**96.3**	**122.6**	**F**	**F**	E
36	Archibald Av. / Chino Av.	TS	25.1	64.0	C	E	28.1	72.8	C	E	E
37	Archibald Av. / Schaefer Av.[4]	**CSS**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	E
38	Archibald Av. / Ontario Ranch Rd.	TS	**123.0**	**116.1**	**F**	**F**	**132.3**	**125.1**	**F**	**F**	E
39	Archibald Av. / Eucalyptus Av.[4]	TS	16.3	25.2	B	C	17.8	27.4	B	C	E
40	Archibald Av. / Merrill Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	E
41	Archibald Av. / Limonite Av.	TS	**155.6**	**>200.0**	**F**	**F**	**175.2**	**>200.0**	**F**	**F**	D

Table 4.14-17 Opening Year (2020) Intersection Analysis (cont.)

#	Intersection	Traffic Control[2]	2020 Without Project				2020 With Project				Acceptable LOS
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
42	Harrison Av. / Limonite Av.	TS	**69.0**	26.5	**E**	C	**71.9**	26.8	**E**	C	D
43	Sumner Av. / Limonite Av.	TS	22.9	25.0	C	C	23.0	25.3	C	C	D
44	Scholar Wy. / Limonite Av.	TS	26.7	35.8	C	D	29.3	38.3	C	D	D
45	Hamner Av. / Limonite Av.	TS	47.0	**70.5**	D	**E**	48.2	**74.8**	D	**E**	D
46	I-15 SB Ramps / Limonite Av.	TS	32.0	25.7	C	C	32.9	26.5	C	C	D
47	I-15 NB Ramps / Limonite Av.	TS	49.5	33.3	D	C	51.8	34.3	D	C	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
[2]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement
[3]Assumes improvements that are currently under construction.
[4]Additional lanes assumed to provide access to future cumulative projects.
Source: (Urban Crossroads, 2018e, Table 6-1)

Table 4.14-18 Opening Year (2020) Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2020 Without Project	V/C[2]	LOS[3]	Acceptable LOS[3]	2020 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Merrill Avenue	Euclid Av. (SR-83) to Grove Av.	2U	14,000	21,574	**1.54**	F	D	23,460	**1.68**	F	D
2		Grove Av. to Flight Av.	2U	14,000	25,136	**1.80**	F	D	27,180	**1.94**	F	D
3		Flight Av. to Hellman Av.	2U	14,000	23,864	**1.70**	F	D	24,340	**1.74**	F	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]These maximum roadway capacities have been obtained from the City of Chino's General Plan (Table 4.13-I).
[2]V/C = Volume to Capacity Ratio
[3]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 6-2)

Table 4.14-19 Horizon Year (2040) Intersection Analysis – Without Limonite Extension

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project				Acceptable LOS
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Euclid Av. (SR-83) / SR-60 WB Ramps	TS	**76.6**	**55.6**	**E**	**E**	**88.0**	**57.6**	**F**	**E**	D
2	Euclid Av. (SR-83) / SR-60 EB Ramps	TS	47.6	**63.6**	D	**E**	54.0	**68.8**	D	**E**	D
3	Euclid Av. (SR-83) / Walnut St.	TS	51.5	58.0	D	E	54.8	63.1	D	E	E
4	Euclid Av. (SR-83) / Riverside Dr.[3]	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
5	Euclid Av. (SR-83) / Chino Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
6	Euclid Av. (SR-83) / Schaefer Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
7	Euclid Av. (SR-83) / Edison Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
8	Euclid Av. (SR-83) / Eucalyptus Av.	TS	**92.3**	**96.0**	**F**	**F**	**98.9**	**104.8**	**F**	**F**	D
9	Euclid Av. (SR-83) / Merrill Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
10	Euclid Av. (SR-83) / Kimball Av.[3]	TS	**108.6**	**158.1**	**F**	**F**	**116.4**	**167.5**	**F**	**F**	D
11	Euclid Av. (SR-83) / Bickmore Av.	TS	**>200.0**	**76.1**	**F**	**F**	**>200.0**	**80.0**	**F**	**F**	D
12	Euclid Av. (SR-83) / Pine Av.	TS	**171.8**	**>200.0**	**F**	**F**	**177.7**	**>200.0**	**F**	**F**	D
13	SR-71 NB Ramps / Euclid Av. (SR-83)	TS	10.8	34.8	B	D	10.8	36.9	B	D	D
14	SR-71 SB Ramps / Euclid Av. (SR-83)	TS	**91.6**	21.9	**F**	C	**92.7**	21.9	**F**	C	D
15	Bon View Av. / Merrill Av.	CSS	16.9	**37.1**	C	**E**	21.3	**41.9**	C	**E**	D
16	Rincon Meadows Av. / Kimball Av.	TS	9.3	21.4	A	C	9.4	22.0	A	C	D
17	Mill Creek Av. / Kimball Av.	TS	11.8	21.4	B	C	12.0	22.0	B	C	D
18	Grove Av. / Merrill Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
19	Main St. / Kimball Av.	TS	15.9	35.6	B	D	16.1	36.2	B	D	D
20	Flight Av. / Merrill Av.	CSS/**TS**	**>200.0**	**>200.0**	**F**	**F**	54.4	48.9	D	D	D
21	Flight Av. / Driveway 1	--/**CSS**	Future Intersection				22.8	25.3	C	D	D
22	Flight Av. / Driveway 2	--/**CSS**	Future Intersection				15.2	17.5	C	C	D
23	Flight Av. / Driveway 3	--/**CSS**	Future Intersection				15.0	17.5	C	C	D
24	Flight Av. / Remington Av.	AWS/**TS**	12.8	16.6	B	C	24.7	22.5	C	C	D
25	Flight Av. / Kimball Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
26	Baker Av./Van Vliet Av. / Merrill Av.	CSS	23.0	**42.8**	C	**E**	28.0	**53.8**	D	**F**	D
27	Meadow Valley Av. / Kimball Av.[4]	CSS	28.2	29.1	D	D	30.7	30.1	D	D	D
28	Hellman Av. / Merrill Av.[4]	**TS**	**118.2**	**107.4**	**F**	**F**	**127.2**	**119.9**	**F**	**F**	D
29	Hellman Av. / Kimball Av.[4]	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
30	Hellman Av. / Pine Av.	TS	28.4	34.6	C	C	28.5	34.7	C	C	D
31	Hellman Av. / Chandler Av.	TS	**144.1**	21.4	**F**	C	**158.2**	22.5	**F**	C	D
32	Carpenter Av. / Merrill Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
33	Archibald Av. / SR-60 WB Ramps	TS	**68.4**	**99.7**	**E**	**F**	**70.0**	**107.3**	**E**	**F**	D
34	Archibald Av. / SR-60 EB Ramps	TS	**93.2**	**81.7**	**F**	**F**	**106.0**	**84.0**	**F**	**F**	D
35	Archibald Av. / Riverside Dr.	TS	**73.8**	**100.8**	**E**	**F**	**83.7**	**104.3**	**F**	**F**	E
36	Archibald Av. / Chino Av.	TS	59.9	**161.9**	E	**F**	61.0	**172.4**	E	**F**	E
37	Archibald Av. / Schaefer Av.[4]	**TS**	**131.2**	**>200.0**	**F**	**F**	**133.3**	**>200.0**	**F**	**F**	E
38	Archibald Av. / Ontario Ranch Rd.	TS	**166.0**	**>200.0**	**F**	**F**	**167.0**	**>200.0**	**F**	**F**	E
39	Archibald Av. / Eucalyptus Av.[4]	TS	**160.9**	26.5	**F**	C	**185.3**	27.4	**F**	C	E
40	Archibald Av. / Merrill Av.	TS	**>200.0**	**>200.0**	**E**	**F**	**>200.0**	**>200.0**	**F**	**F**	E
41	Archibald Av. / Limonite Av.	TS	**171.4**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D

Table 4.14-19 Horizon Year (2040) Intersection Analysis – Without Limonite Extension

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project				Acceptable LOS
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
42	Harrison Av. / Limonite Av.	TS	43.6	**64.6**	D	**E**	47.1	**71.5**	D	**E**	D
43	Sumner Av. / Limonite Av.	TS	**59.1**	**114.2**	**E**	**F**	**59.4**	**116.2**	**E**	**F**	D
44	Scholar Wy. / Limonite Av.	TS	33.0	**79.4**	c	**E**	36.4	**87.2**	D	**F**	D
45	Hamner Av. / Limonite Av.	TS	**72.3**	**110.0**	**E**	**F**	**72.4**	**114.2**	**E**	**F**	D
46	I-15 SB Ramps / Limonite Av.	TS	**56.9**	**73.6**	**E**	**E**	**61.7**	**77.3**	**E**	**E**	D
47	I-15 NB Ramps / Limonite Av.	TS	**57.7**	**63.0**	**E**	**E**	**59.5**	**64.7**	**E**	**E**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
[2]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement
[3]Assumes improvements that are currently under construction.
[4]Additional lanes assumed to provide access to future cumulative projects.
Source: (Urban Crossroads, 2018e, Table7-1)

Table 4.14-20 Horizon Year (2040) Intersection Analysis – With Limonite Extension

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project				Acceptable LOS
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Euclid Av. (SR-83) / SR-60 WB Ramps	TS	**76.6**	**55.6**	E	E	**88.0**	**57.6**	F	E	D
2	Euclid Av. (SR-83) / SR-60 EB Ramps	TS	47.6	**91.9**	D	F	54.0	**99.3**	D	F	D
3	Euclid Av. (SR-83) / Walnut St.	TS	50.6	56.9	D	E	53.9	62.0	D	E	E
4	Euclid Av. (SR-83) / Riverside Dr.[3]	TS	**>200.0**	**>200.0**	F	F	**>200.0**	**>200.0**	F	F	D
5	Euclid Av. (SR-83) / Chino Av.	TS	**>200.0**	**>200.0**	F	F	**>200.0**	**>200.0**	F	F	D
6	Euclid Av. (SR-83) / Schaefer Av.	TS	**>200.0**	**>200.0**	F	F	**>200.0**	**>200.0**	F	F	D
7	Euclid Av. (SR-83) / Edison Av.	TS	**>200.0**	**>200.0**	F	F	**>200.0**	**>200.0**	F	F	D
8	Euclid Av. (SR-83) / Eucalyptus Av.	TS	**90.5**	**96.0**	F	F	**97.2**	**104.8**	F	F	D
9	Euclid Av. (SR-83) / Merrill Av.	TS	**>200.0**	**>200.0**	F	F	**>200.0**	**>200.0**	F	F	D
10	Euclid Av. (SR-83) / Kimball Av.[3]	TS	**108.6**	**158.1**	F	F	**116.4**	**167.5**	F	F	D
11	Euclid Av. (SR-83) / Bickmore Av.	TS	**>200.0**	**76.1**	F	E	**>200.0**	**80.0**	F	F	D
12	Euclid Av. (SR-83) / Pine Av.	TS	**171.8**	**>200.0**	F	F	**177.7**	**>200.0**	F	F	D
13	SR-71 NB Ramps / Euclid Av. (SR-83)	TS	10.8	34.8	B	C	10.8	36.9	B	D	D
14	SR-71 SB Ramps / Euclid Av. (SR-83)	TS	**91.6**	21.9	F	C	**92.7**	21.9	F	C	D
15	Bon View Av. / Merrill Av.	CSS	16.9	**37.1**	C	E	21.3	**41.9**	C	E	D
16	Rincon Meadows Av. / Kimball Av.	TS	12.7	34.6	B	C	12.8	35.6	B	D	D
17	Mill Creek Av. / Kimball Av.	TS	28.6	41.0	C	D	29.4	41.9	C	D	D
18	Grove Av. / Merrill Av.	AWS	**>100.0**	**>100.0**	F	F	**>100.0**	**>100.0**	F	F	D
19	Main St. / Kimball Av.	TS	20.3	52.2	C	D	21.0	53.9	C	D	D
20	Flight Av. / Merrill Av.	CSS/**TS**	**>200.0**	**>200.0**	F	F	30.0	35.1	C	D	D
21	Flight Av. / Driveway 1	--/**CSS**	Future Intersection				16.0	19.6	C	C	D
22	Flight Av. / Driveway 2	--/**CSS**	Future Intersection				11.6	14.3	B	B	D
23	Flight Av. / Driveway 3	--/**CSS**	Future Intersection				12.0	14.9	B	B	D
24	Flight Av. / Remington Av.	AWS/**TS**	20.2	**54.8**	C	F	28.6	29.0	C	C	D
25	Flight Av. / Kimball Av.	CSS	**>100.0**	**>100.0**	F	F	**>100.0**	**>100.0**	F	F	D
26	Baker Av./Van Vliet Av. / Merrill Av.	CSS	19.1	**42.5**	C	E	20.5	**51.5**	C	F	D
27	Meadow Valley Av. / Kimball Av.[4]	CSS	**>100.0**	**>100.0**	F	F	**>100.0**	**>100.0**	F	F	D
28	Hellman Av. / Merrill Av.[4]	**TS**	**61.2**	**104.2**	E	F	**65.3**	**116.8**	E	F	D
29	Hellman Av. / Kimball Av.[4]	AWS	**>100.0**	**>100.0**	F	F	**>100.0**	**>100.0**	F	F	D
30	Hellman Av. / Pine Av.	TS	**72.8**	**167.9**	E	F	**73.0**	**168.7**	E	F	D
31	Hellman Av. / Chandler Av.	TS	**144.1**	21.4	F	C	**158.2**	22.5	F	C	D
32	Carpenter Av. / Merrill Av.	CSS	**37.0**	**>100.0**	E	F	**64.2**	**>100.0**	F	F	D
33	Archibald Av. / SR-60 WB Ramps	TS	**68.4**	**99.7**	E	F	**70.0**	**107.3**	E	F	D
34	Archibald Av. / SR-60 EB Ramps	TS	**93.2**	**81.7**	F	F	**106.0**	**84.0**	F	F	D
35	Archibald Av. / Riverside Dr.	TS	**73.8**	**100.8**	E	F	**83.7**	**104.3**	F	F	E
36	Archibald Av. / Chino Av.	TS	59.9	**161.9**	E	F	61.0	**172.4**	E	F	E
37	Archibald Av. / Schaefer Av.[4]	**TS**	**131.2**	**>200.0**	F	F	**133.3**	**>200.0**	F	F	E
38	Archibald Av. / Ontario Ranch Rd.	TS	**166.0**	**>200.0**	F	F	**167.0**	**>200.0**	F	F	E
39	Archibald Av. / Eucalyptus Av.[4]	TS	**160.9**	26.5	F	C	**185.3**	27.4	F	C	E
40	Archibald Av. / Merrill Av.	TS	**69.5**	**>200.0**	E	F	**86.4**	**>200.0**	F	F	E
41	Archibald Av. / Limonite Av.	TS	**>200.0**	**>200.0**	F	F	**>200.0**	**>200.0**	F	F	D

Table 4.14-20 Horizon Year (2040) Intersection Analysis – With Limonite Extension

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project				Acceptable LOS
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
42	Harrison Av. / Limonite Av.	TS	43.6	**64.6**	D	E	47.1	**71.5**	D	E	D
43	Sumner Av. / Limonite Av.	TS	**59.1**	**114.2**	E	F	**59.4**	**116.2**	E	F	D
44	Scholar Wy. / Limonite Av.	TS	33.0	**79.4**	C	E	36.4	**87.2**	D	F	D
45	Hamner Av. / Limonite Av.	TS	**72.3**	**110.0**	E	F	**72.4**	**114.2**	E	F	D
46	I-15 SB Ramps / Limonite Av.	TS	**56.9**	**73.6**	E	E	**61.7**	**77.3**	E	E	D
47	I-15 NB Ramps / Limonite Av.	TS	**57.7**	**63.0**	E	E	**59.5**	**64.7**	E	E	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
[2]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement
[3]Assumes improvements that are currently under construction.
[4]Additional lanes assumed to provide access to future cumulative projects.
Source: (Urban Crossroads, 2018e, Table 7-2)

Table 4.14-21 Horizon Year (2040) Roadway Segment Analysis – Without Limonite Extension

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2040 Without Project	V/C[2]	LOS[3]	Acceptable LOS[3]	2040 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Merrill Avenue	Euclid Av. (SR-83) to Grove Av.	2U	14,000	21,352	**1.53**	F	D	23,238	**1.66**	F	D
2		Grove Av. to Flight Av.	2U	14,000	24,840	**1.77**	F	D	26,778	**1.91**	F	D
3		Flight Av. to Hellman Av.	2U	14,000	26,600	**1.90**	F	D	28,794	**2.06**	F	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]These maximum roadway capacities have been obtained from the City of Chino's General Plan (Table 4.13-I).
[2]V/C = Volume to Capacity Ratio
[3]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 7-3)

Table 4.14-22 Horizon Year (2040) Roadway Segment Analysis – With Limonite Extension

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2040 Without Project	V/C[2]	LOS[3]	Acceptable LOS[3]	2040 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Merrill Avenue	Euclid Av. (SR-83) to Grove Av.	2U	14,000	16,698	**1.19**	F	D	18,584	**1.33**	F	D
2		Grove Av. to Flight Av.	2U	14,000	21,968	**1.57**	F	D	23,906	**1.71**	F	D
3		Flight Av. to Hellman Av.	2U	14,000	21,968	**1.57**	F	D	24,162	**1.73**	F	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1]These maximum roadway capacities have been obtained from the City of Chino's General Plan (Table 4.13-I).
[2]V/C = Volume to Capacity Ratio
[3]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 7-4)

Table 4.14-23 Existing plus Project Freeway Mainline Analysis

Freeway	Direction[1]	Mainline Segment	Lanes[2]	Existing (2017)				E+P			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-60	WB	West of Euclid Av. (SR-83)	4	32.4	30.9	D	D	32.7	30.9	D	D
		East of Euclid Av. (SR-83)	4	32.6	32.8	D	D	32.6	32.8	D	D
		West of Archibald Av.	4	28.2	25.0	D	C	28.2	25.0	D	C
		East of Archibald Av.	5	21.4	18.3	C	C	21.5	18.5	C	C
	EB	West of Euclid Av. (SR-83)	4	30.0	26.6	D	D	30.1	26.8	D	D
		East of Euclid Av. (SR-83)	4	32.6	27.0	D	D	32.6	27.0	D	D
		West of Archibald Av.	4	29.3	25.5	D	C	29.3	25.5	D	C
		East of Archibald Av.	4	28.2	25.9	D	C	28.7	26.0	D	D
SR-71	NB	South of Euclid Av. (SR-83)	2	13.9	25.7	B	C	14.2	26.0	B	D
	SB	South of Euclid Av. (SR-83)	3	12.7	17.2	B	B	12.8	17.4	B	B
I-15	SB	North of Limonite Av.	3	30.3	31.7	D	D	30.4	31.8	D	D
		South of Limonite Av.	3	**36.4**	30.9	**E**	D	**36.7**	30.9	**E**	D
	NB	North of Limonite Av.	3	32.6	26.7	D	D	32.9	26.7	D	D
		South of Limonite Av.	3	27.6	29.9	D	D	27.7	30.1	D	D

BOLD = Unacceptable Level of Service
[1]NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound
[2]Number of lanes are in the specified direction and is based on existing conditions.
[3]Density is measured by passenger cars per mile per lane (pc/mi/ln).
[4]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 5-4)

Table 4.14-24 Existing plus Project Freeway Ramp Queuing Analysis

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2017)				E+P			
			95th Percentile Queue (Feet)[3]		Acceptable?[1]		95th Percentile Queue (Feet)[3]		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Euclid Avenue/ SR-60 WB Ramps	WBL	400	358[2]	382[2]	Yes	Yes	358[2]	382[2]	Yes	Yes
	WBL/T/R	1,430	368[2]	314[2]	Yes	Yes	368[2]	314[2]	Yes	Yes
	WBR	400	165	220[2]	Yes	Yes	165	221[2]	Yes	Yes
Euclid Avenue/ SR-60 EB Ramps	EBL	900	435[2]	410[2]	Yes	Yes	435[2]	410[2]	Yes	Yes
	EBL/R	1,270	537[2]	278[2]	Yes	Yes	560[2]	333[2]	Yes	Yes
SR-71 NB Ramps / Euclid Avenue	NBL	1,745	25	36	Yes	Yes	25	36	Yes	Yes
	NBR	420	113	894[2]	Yes	Yes[3]	117	930[2]	Yes	Yes[3]
SR-71 SB Ramps / Euclid Avenue	SBL	1,100	236	213	Yes	Yes	236	213	Yes	Yes
	SBL/T	1,560	231	208	Yes	Yes	231	208	Yes	Yes
	SBR	255	0	0	Yes	Yes	0	0	Yes	Yes
Archibald Avenue/ SR-60 WB Ramps	WBL/T	1,389	311[2]	336[2]	Yes	Yes	332[2]	421[2]	Yes	Yes
	WBR	250	429[2]	54	Yes[3]	Yes	429[2]	54	Yes[3]	Yes
Archibald Avenue/ SR-60 EB Ramps	EBL/T	1,268	394[2]	92	Yes	Yes	394[2]	92	Yes	Yes
	EBR	350	137	511[2]	Yes	Yes[3]	144	511[2]	Yes	Yes[3]
I-15 SB Ramps / Limonite Avenue	SBL	400	178	188	Yes	Yes	178	214	Yes	Yes
	SBL/T/R	400	85	240	Yes	Yes	85	243	Yes	Yes
	SBR	1,200	65	218	Yes	Yes	66	228	Yes	Yes
I-15 NB Ramps / Limonite Avenue	NBL	450	214[2]	350	Yes	Yes	217	364	Yes	Yes
	NBL/T/R	1,235	125	250	Yes	Yes	145	248	Yes	Yes
	NBR	400	62	235	Yes	Yes	63	234	Yes	Yes

[1]Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2]95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3]Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-60, SR-71, or I-15 Freeway mainline.

Source: (Urban Crossroads, 2018e,Table 5-3)

Table 4.14-25 Existing plus Project Freeway Ramp Merge/Diverge Analysis

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	Existing (2017)				E+P			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]
SR-60	WB	On-Ramp at Euclid Av. (SR-83)	4	29.2	D	28.1	D	29.7	D	28.2	D
		Off-Ramp at Euclid Av. (SR-83)	4	**37.1**	E	**38.0**	E	**37.1**	E	**38.0**	E
		On-Ramp at Archibald Av.	4	26.7	C	25.3	C	26.7	C	25.3	C
		Off-Ramp at Archibald Av.	5	30.1	D	27.5	C	30.2	D	28.0	C
	EB	Off-Ramp at Euclid Av. (SR-83)	4	**35.2**	E	32.2	D	**35.4**	E	32.5	D
		On-Ramp at Euclid Av. (SR-83)	4	33.1	D	27.9	C	33.1	D	27.9	C
		Off-Ramp at Archibald Av.	4	34.4	D	31.5	D	34.4	D	31.5	D
		On-Ramp at Archibald Av.	4	25.7	C	25.4	C	26.3	C	25.5	C
SR-71	SB	Loop On-Ramp at Euclid Av. (SR-83) (Upstream)	2	15.3	B	26.1	C	15.6	B	26.4	C
		Loop On-Ramp at Euclid Av. (SR-83) (Downstream)	2	15.3	B	26.1	C	15.6	B	26.4	C
	NB	Off-Ramp at Euclid Av. (SR-83)	3	21.3	C	27.3	C	21.4	C	27.5	C
I-15	SB	Off-Ramp at Limonite Av.	3	33.8	D	**35.0**	E	33.9	D	**35.2**	E
		On-Ramp at Limonite Av.	3	34.6	D	30.8	D	34.9	D	30.9	D
	NB	On-Ramp at Limonite Av.	3	32.5	D	27.6	C	32.8	D	27.7	C
		Off-Ramp at Limonite Av.	3	32.3	D	34.6	D	32.4	D	34.8	D

BOLD = Unacceptable Level of Service
[1]NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound
[2]Number of lanes are in the specified direction and is based on existing conditions.
[3]Density is measured by passenger cars per mile per lane (pc/mi/ln).
[4]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 5-5)

Table 4.14-26 Opening Year (2020) Freeway Mainline Analysis

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2020 Without Project				2020 With Project			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-60	WB	West of Euclid Av. (SR-83)	4	**39.1**	**39.3**	**E**	**E**	**39.8**	**40.6**	**E**	**E**
		East of Euclid Av. (SR-83)	4	**40.0**	**39.7**	**E**	**E**	**40.0**	**39.7**	**E**	**E**
		West of Archibald Av.	4	**35.6**	30.8	**E**	D	**35.6**	30.8	**E**	D
		East of Archibald Av.	5	26.1	21.8	D	C	26.1	22.0	D	C
	EB	West of Euclid Av. (SR-83)	4	**39.1**	32.4	**E**	D	**39.2**	32.8	**E**	D
		East of Euclid Av. (SR-83)	4	**39.0**	33.1	**E**	D	**39.0**	33.1	**E**	D
		West of Archibald Av.	4	**36.5**	32.6	**E**	D	**36.5**	32.6	**E**	D
		East of Archibald Av.	4	34.7	34.3	D	D	**35.2**	34.4	**E**	D
SR-71	NB	South of Euclid Av. (SR-83)	2	17.3	**36.7**	B	**E**	17.6	**37.2**	B	**E**
	SB	South of Euclid Av. (SR-83)	3	16.1	20.3	B	C	16.2	20.4	B	C
I-15	SB	North of Limonite Av.	3	**37.0**	**39.9**	**E**	**E**	**37.1**	**40.5**	**E**	**E**
		South of Limonite Av.	3	**47.7**	**44.5**	**F**	**E**	**48.3**	**44.6**	**F**	**E**
	NB	North of Limonite Av.	3	**40.1**	33.0	**E**	D	**40.4**	33.1	**E**	D
		South of Limonite Av.	3	**37.5**	**40.1**	**E**	**E**	**37.6**	**40.3**	**E**	**E**

BOLD = Unacceptable Level of Service
[1]NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound
[2]Number of lanes are in the specified direction and is based on existing conditions.
[3]Density is measured by passenger cars per mile per lane (pc/mi/ln).
[4]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 6-4)

Table 4.14-27 Opening Year (2020) Freeway Ramp Queuing Analysis

Intersection	Movement	Available Stacking Distance (Feet)	2020 Without Project				2020 With Project			
			95th Percentile Queue (Feet)[3]		Acceptable? [1]		95th Percentile Queue (Feet)[3]		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Euclid Avenue/ SR-60 WB Ramps	WBL	400	520 [2]	463 [2]	Yes[3]	Yes[3]	520 [2]	463 [2]	Yes[3]	Yes[3]
	WBL/T/R	1,430	528 [2]	391 [2]	Yes	Yes	528 [2]	391 [2]	Yes	Yes
	WBR	400	294 [2]	321 [2]	Yes	Yes	295 [2]	322 [22]	Yes	Yes
Euclid Avenue/ SR-60 EB Ramps	EBL	900	468 [2]	442 [2]	Yes	Yes	468 [2]	442 [2]	Yes	Yes
	EBL/R	1,270	1,149 [2]	667 [2]	Yes	Yes	1,169 [2]	720 [2]	Yes	Yes
SR-71 NB Ramps / Euclid Avenue	NBL	1,745	26	38	Yes	Yes	26	38	Yes	Yes
	NBR	420	816 [2]	1,395 [2]	Yes[3]	Yes[3]	838 [2]	1,427 [2]	Yes[3]	Yes[3]
SR-71 SB Ramps / Euclid Avenue	SBL	1,100	275	241	Yes	Yes	275	241	Yes	Yes
	SBL/T	1,560	274	234	Yes	Yes	274	234	Yes	Yes
	SBR	255	0	0	Yes	Yes	0	0	Yes	Yes
Archibald Avenue/ SR-60 WB Ramps	WBL/T	1,389	694 [2]	657 [2]	Yes	Yes	715 [2]	736 [2]	Yes	Yes
	WBR	250	469 [2]	57	Yes[3]	Yes	468 [2]	69	Yes[3]	Yes
Archibald Avenue/ SR-60 EB Ramps	EBL/T	1,268	432 [2]	97	Yes	Yes	432 [2]	97	Yes	Yes
	EBR	350	530 [2]	862 [2]	Yes[3]	Yes[3]	530 [2]	862 [2]	Yes[3]	Yes[3]
I-15 SB Ramps / Limonite Avenue	SBL	400	189	227	Yes	Yes	189	227	Yes	Yes
	SBL/T/R	400	324 [2]	545 [2]	Yes	Yes[3]	335 [2]	571 [2]	Yes	Yes[3]
	SBR	1,200	308 [2]	493 [2]	Yes	Yes	321 [2]	518 [2]	Yes	Yes
I-15 NB Ramps / Limonite Avenue	NBL	450	547 [2]	624 [2]	Yes[3]	Yes[3]	556 [2]	646 [2]	Yes[3]	Yes[3]
	NBL/T/R	1,235	574 [2]	585 [2]	Yes	Yes	582 [2]	606 [2]	Yes	Yes
	NBR	400	81	491 [2]	Yes	Yes[3]	81	507 [2]	Yes	Yes[3]

[1]Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2]95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3]Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-60, SR-71, or I-15 Freeway mainline.

Source: (Urban Crossroads, 2018e, Table 6-3)

Table 4.14-28 Opening Year (2020) Freeway Ramp Merge/Diverge Analysis

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	2020 Without Project				2020 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]
SR-60	WB	On-Ramp at Euclid Av. (SR-83)	4	33.3	D	34.6	D	33.8	D	34.7	D
		Off-Ramp at Euclid Av. (SR-83)	4	**42.3**	E	**42.3**	E	**42.3**	E	**42.3**	E
		On-Ramp at Archibald Av.	4	31.4	D	30.3	D	31.4	D	30.3	D
		Off-Ramp at Archibald Av.	5	**35.5**	E	31.2	D	**35.9**	E	31.7	D
	EB	Off-Ramp at Euclid Av. (SR-83)	4	**43.1**	E	**38.1**	E	**43.2**	E	**38.2**	E
		On-Ramp at Euclid Av. (SR-83)	4	**36.5**	E	32.7	D	**36.6**	E	32.7	D
		Off-Ramp at Archibald Av.	4	**39.9**	E	**37.7**	E	**39.9**	E	**37.7**	E
		On-Ramp at Archibald Av.	4	30.0	D	31.9	D	30.7	D	32.0	D
SR-71	SB	Loop On-Ramp at Euclid Av. (SR-83) (Upstream)	2	18.6	B	32.6	D	18.9	B	32.9	D
		Loop On-Ramp at Euclid Av. (SR-83) (Downstream)	2	18.6	B	32.6	D	18.9	B	32.9	D
	NB	Off-Ramp at Euclid Av. (SR-83)	3	26.3	C	31.3	D	26.5	C	31.5	D
I-15	SB	Off-Ramp at Limonite Av.	3	**36.9**	E	**38.5**	E	**37.0**	E	**38.7**	E
		On-Ramp at Limonite Av.	3	**39.9**	F	**38.6**	E	**40.2**	F	**38.6**	E
	NB	On-Ramp at Limonite Av.	3	**36.5**	E	32.2	D	**36.8**	E	32.3	D
		Off-Ramp at Limonite Av.	3	**37.7**	E	**39.4**	E	**37.8**	E	**39.6**	E

BOLD = Unacceptable Level of Service
[1]NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound
[2]Number of lanes are in the specified direction and is based on existing conditions
[3]Density is measured by passenger cars per mile per lane (pc/mi/ln).
[4]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 6-5)

Table 4.14-29 Horizon Year (2040) Freeway Mainline Analysis

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2040 Without Project				2040 With Project			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-60	WB	West of Euclid Av. (SR-83)	2	27.2	**38.3**	D	**E**	27.4	**38.3**	D	**E**
		East of Euclid Av. (SR-83)	3	26.2	**39.8**	D	**E**	26.2	**39.8**	D	**E**
		West of Archibald Av.	4	20.0	28.6	C	D	20.0	28.6	C	D
		East of Archibald Av.	4	16.3	21.2	B	C	16.3	21.2	B	C
	EB	West of Euclid Av. (SR-83)	4	**41.8**	**97.4**	**E**	**F**	**42.0**	**40.4**	**E**	**E**
		East of Euclid Av. (SR-83)	5	**44.5**	**38.2**	**E**	**E**	**44.5**	**38.2**	**E**	**E**
		West of Archibald Av.	4	**45.4**	**35.3**	**F**	**E**	**45.4**	**35.3**	**F**	**E**
		East of Archibald Av.	4	**42.7**	**38.0**	**E**	**E**	**43.8**	**38.1**	**E**	**E**
SR-71	NB	South of Euclid Av. (SR-83)	4	**845.0**	**392.6**	**F**	**F**	**1,055.6**	**494.6**	**F**	**F**
	SB	South of Euclid Av. (SR-83)	4	**92.0**	**107.0**	**F**	**F**	**92.7**	**108.2**	**F**	**F**
I-15	SB	North of Limonite Av.	3	**36.4**	24.4	**E**	C	**36.4**	24.7	**E**	C
		South of Limonite Av.	3	**53.7**	29.4	**F**	D	**54.4**	29.5	**F**	D
	NB	North of Limonite Av.	3	28.6	23.0	D	C	28.7	23.2	D	C
		South of Limonite Av.	3	33.2	28.7	D	D	33.3	29.1	D	D

BOLD = Unacceptable Level of Service
[1]NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound
[2]Number of lanes are in the specified direction and is based on existing conditions.
[3]Density is measured by passenger cars per mile per lane (pc/mi/ln).
[4]LOS = Level of Service
Source: (Urban Crossroads, 2018e Table 7-6)

Table 4.14-30 Horizon Year (2040) Freeway Ramp Queuing Analysis

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project			
			95th Percentile Queue (Feet)[3]		Acceptable?[1]		95th Percentile Queue (Feet)[3]		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Euclid Avenue/ SR-60 WB Ramps	WBL	400	469[2]	576[2]	Yes[3]	Yes[3]	469[2]	576[2]	Yes[3]	Yes[3]
	WBL/T/R	1,430	474[2]	563[2]	Yes	Yes	474[2]	563[2]	Yes	Yes
	WBR	400	332[2]	441[2]	Yes	Yes[3]	332[2]	441[2]	Yes	Yes[3]
Euclid Avenue/ SR-60 EB Ramps	EBL	900	457[2]	664[2]	Yes	Yes	457[2]	664[2]	Yes	Yes
	EBL/R	1,270	563[2]	684[2]	Yes	Yes	582[2]	737[2]	Yes	Yes
SR-71 NB Ramps / Euclid Avenue	NBL	1,745	107	80	Yes	Yes	107	80	Yes	Yes
	NBR	420	806[2]	1,569[2]	Yes[3]	Yes[3]	828[2]	1,603[2]	Yes[3]	Yes[3]
SR-71 SB Ramps / Euclid Avenue	SBL	1,100	135	272	Yes	Yes	135	272	Yes	Yes
	SBL/T	1,560	134	270	Yes	Yes	134	270	Yes	Yes
	SBR	255	0	0	Yes	Yes	0	0	Yes	Yes
Archibald Avenue/ SR-60 WB Ramps	WBL/T	1,389	497[2]	572[2]	Yes	Yes	519[2]	654[2]	Yes	Yes
	WBR	250	713[2]	262[2]	Yes[3]	Yes[3]	713[2]	263[2]	Yes[3]	Yes[3]
Archibald Avenue/ SR-60 EB Ramps	EBL/T	1,268	516[2]	169	Yes	Yes	516[2]	169	Yes	Yes
	EBR	350	299	380[2]	Yes	Yes[3]	299	380[2]	Yes	Yes[3]
I-15 SB Ramps / Limonite Avenue	SBL	400	321[2]	437[2]	Yes	Yes[3]	321[2]	456[2]	Yes	Yes[3]
	SBL/T/R	400	228[2]	361[2]	Yes	Yes	228[2]	379[2]	Yes	Yes
	SBR	1,200	192	323[2]	Yes	Yes	192[2]	333[2]	Yes	Yes
I-15 NB Ramps / Limonite Avenue	NBL	450	743[2]	665[2]	Yes[3]	Yes[3]	743[2]	678[2]	Yes[3]	Yes[3]
	NBL/T/R	1,235	682[2]	595[2]	Yes	Yes	682[2]	613[2]	Yes	Yes
	NBR	400	613[2]	553[2]	Yes[3]	Yes[3]	613[2]	571[2]	Yes[3]	Yes[3]

[1]Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2]95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3]Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and
affecting the SR-60, SR-71, or I-15 Freeway mainline.

Source: (Urban Crossroads, 2018e, Table 7-5)

Table 4.14-31 Horizon Year (2040) Freeway Ramp Merge/Diverge Analysis

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	2040 Without Project				2040 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]
SR-60	WB	On-Ramp at Euclid Av. (SR-83)	4	29.4	D	34.1	D	29.8	D	34.3	D
		Off-Ramp at Euclid Av. (SR-83)	4	**35.1**	E	**44.1**	E	**35.1**	E	**44.1**	E
		On-Ramp at Archibald Av.	4	22.6	C	28.6	D	22.6	C	28.6	D
		Off-Ramp at Archibald Av.	5	28.3	D	31.2	D	28.4	D	31.3	D
	EB	Off-Ramp at Euclid Av. (SR-83)	4	**41.9**	E	**42.1**	E	**42.1**	E	**42.6**	E
		On-Ramp at Euclid Av. (SR-83)	4	**37.5**	E	34.2	D	**37.5**	E	34.2	D
		Off-Ramp at Archibald Av.	4	**43.7**	F	**38.3**	E	**43.7**	F	**38.3**	E
		On-Ramp at Archibald Av.	4	33.2	D	32.9	D	35.9	D	33.0	D
SR-71	SB	Loop On-Ramp at Euclid Av. (SR-83) (Upstream)	2	**51.9**	F	**55.7**	F	**52.2**	F	**56.0**	F
		Loop On-Ramp at Euclid Av. (SR-83) (Downstream)	2	**51.9**	F	**55.7**	F	**52.2**	F	**56.0**	F
	NB	Off-Ramp at Euclid Av. (SR-83)	3	**58.3**	F	**60.6**	F	**58.5**	F	**60.8**	F
I-15	SB	Off-Ramp at Limonite Av.	3	**36.7**	E	31.3	D	**36.7**	E	31.5	D
		On-Ramp at Limonite Av.	3	**42.8**	F	32.7	D	**43.1**	F	32.7	D
	NB	On-Ramp at Limonite Av.	3	29.3	D	25.2	C	29.6	D	25.3	C
		Off-Ramp at Limonite Av.	3	**36.7**	E	**35.1**	E	**36.8**	E	**35.4**	E

BOLD = Unacceptable Level of Service
[1]NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound
[2]Number of lanes are in the specified direction and is based on existing conditions
[3]Density is measured by passenger cars per mile per lane (pc/mi/ln).
[4]LOS = Level of Service
Source: (Urban Crossroads, 2018e, Table 7-7)

Table 4.14-32 Existing plus Project Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
2	Euclid Av. (SR-83) / SR-60 EB Ramps																	
	- Existing Conditions	TS	0	2	1	1	2	0	1	1	0	0	0	0	**97.4**	**25.3**	**F**	**C**
	- With Improvements	TS	0	2	1	**2**	2	0	1	1	**1**	0	0	0	42.5	15.4	D	B
	- E+P	TS	0	2	1	1	2	0	1	1	0	0	0	0	**97.5**	**27.5**	**F**	**C**
	- With Improvements	TS	0	2	1	**2**	2	0	1	1	**1**	0	0	0	43.2	15.8	D	B
18	Grove Av. / Merrill Av.																	
	- Existing Conditions	AWS	0	0	0	0	1	0	0	1	0	0	1	0	20.5	18.2	C	C
	- E+P	AWS	0	0	0	0	1	0	0	1	0	0	1	0	**61.6**	**34.0**	**F**	**D**
	- With Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	26.5	14.1	C	B
25	Flight Av. / Kimball Av.																	
	- Existing Conditions	CSS	0	1	0	0	1	0	1	2	0	1	1	0	32.5	26.8	D	D
	- E+P	CSS	0	1	0	0	1	0	1	2	0	1	1	0	**43.1**	33.9	**E**	D
	- With Improvements	**TS**	0	1	0	0	1	0	1	2	0	1	1	0	30.4	14.6	C	B
29	Hellman Av. / Kimball Av.																	
	- Existing Conditions	AWS	1	0	0	0	0	0	0	0	1	0	0	0	**83.6**	**55.3**	**F**	**F**
	- With Improvements	**TS**	1	0	0	0	0	0	0	0	1	0	0	0	3.5	1.9	A	A
	- E+P	AWS	1	0	0	0	0	0	0	0	1	0	0	0	**>100.0**	**65.1**	**F**	**F**
	- With Improvements	**TS**	1	0	0	0	0	0	0	0	1	0	0	0	3.5	1.9	A	A

[1]When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; TS = Improvement

Source: (Urban Crossroads, 2018e, Table 5-6)

Table 4.14-33 Opening Year (2020) Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	Euclid Av. (SR-83) / SR-60 WB Ramps																	
	- Without Project[4]	TS	2	2	0	0	2	1	0	0	0	1	1	1	40.4	40.9	D	D
	- With Project[4]	TS	2	2	0	0	2	1	0	0	0	1	1	1	41.2	41.0	D	D
2	Euclid Av. (SR-83) / SR-60 EB Ramps																	
	- Without Project[4]	TS	0	2	1>>	2	2	0	1	1	1	0	0	0	45.0	29.5	D	C
	- With Project[4]	TS	0	2	1>>	2	2	0	1	1	1	0	0	0	45.7	30.1	D	C
4	Euclid Av. (SR-83) / Riverside Dr.																	
	- Without Project[4]	TS	1	3	1	1	3	1>	1	2	1	2	2	0	44.2	45.4	D	D
	- With Project[4]	TS	1	3	1	1	3	1>	1	2	1	2	2	0	45.2	46.1	D	D
5	Euclid Av. (SR-83) / Chino Av.																	
	- Without Project[4]	TS	1	3	1	1	3	1	1	1	1	0	1	0	30.4	32.7	C	C
	- With Project[4]	TS	1	3	1	1	3	1	1	1	1	0	1	0	31.7	34.9	C	C
6	Euclid Av. (SR-83) / Schaefer Av.																	
	- Without Project[4]	TS	1	3	1	1	3	1	2	1	1	1	1	0	29.3	31.1	C	C
	- With Project[4]	TS	1	3	1	1	3	1	2	1	1	1	1	0	30.0	31.7	C	C
7	Euclid Av. (SR-83) / Edison Av.																	
	- Without Project[4]	TS	1	3	1	1	3	1	1	2	1	1	2	0	45.2	51.0	D	D
	- With Project[4]	TS	1	3	1	1	3	1	1	2	1	1	2	0	47.9	53.1	D	D
9	Euclid Av. (SR-83) / Merrill Av.																	
	- Without Project[4]	TS	1	3	1	2	3	0	0	1	0	1	1	1>	37.3	44.8	D	D
	- With Project[4]	TS	1	3	1	2	3	0	0	1	0	1	1	1>	43.4	52.6	D	D
10	Euclid Av. (SR-83) / Kimball Av.																	
	- Without Project[4]	TS	1	3	1>	2	3	1>	2	2	0	1	2	1>	33.3	43.5	C	D
	- With Project[4]	TS	1	3	1>	2	3	1>	2	2	0	1	2	1>	33.8	45.3	C	D
11	Euclid Av. (SR-83) / Bickmore Av.																	
	- Without Project[4,5]	TS	1	2	0	1	2	1	1	1	1	1	1	1	35.2	27.1	D	C
	- With Project[4,5]	TS	1	2	0	1	2	1	1	1	1	1	1	1	36.1	27.8	D	C
12	Euclid Av. (SR-83) / Pine Av.																	
	- Without Project[4]	TS	1	3	1>>	1	3	0	1	1	1	2	1	0	51.3	51.2	D	D
	- With Project[4]	TS	1	3	1>>	1	3	0	1	1	1	2	1	0	52.2	51.2	D	D
15	Bon View Av. / Merrill Av.																	
	- Without Project	CSS	0	0	0	0	1	0	1	2	0	0	2	0	21.2	29.1	C	D
	- With Project	CSS	0	0	0	0	1	0	1	2	0	0	2	0	25.9	34.0	D	D
18	Grove Av. / Merrill Av.																	
	- Without Project	TS	0	0	0	0	1	0	1	2	0	0	2	0	26.3	20.3	C	C
	- With Project	TS	0	0	0	0	1	0	1	2	0	0	2	0	33.0	21.7	C	C
20	Flight Av. / Merrill Av.																	
	- Without Project	TS	1	0	1	0	0	0	1	2	1	1	2	0	11.5	12.3	B	B
	- With Project	TS	1	0	1	0	0	0	1	2	1	1	2	0	21.4	23.4	C	C
25	Flight Av. / Kimball Av.																	
	- Without Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	18.8	25.0	B	C
	- With Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	21.7	28.0	C	C
26	Baker Av./Van Vliet Av. / Merrill Av.																	
	- Without Project	TS	0	1	0	0	0	0	0	2	0	1	2	0	4.7	5.9	A	A
	- With Project	TS	0	1	0	0	0	0	0	2	0	1	2	0	4.8	6.0	A	A
28	Hellman Av. / Merrill Av.																	
	- Without Project	TS	1	0	1	0	0	0	0	2	1	1	2	0	23.4	23.0	C	C
	- With Project	TS	1	0	1	0	0	0	0	2	1	1	2	0	26.8	23.9	C	C

Table 4.14-33 Opening Year (2020) Intersection Analysis – With Mitigation (cont.)

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
32	Carpenter Av. / Merrill Av.																	
	- Without Project	TS	0	1	0	0	1	0	**1**	**2**	0	**1**	**2**	0	5.9	6.0	A	A
	- With Project	TS	0	1	0	0	1	0	**1**	**2**	0	**1**	**2**	0	5.9	6.0	A	A
33	Archibald Av. / SR-60 WB Ramps																	
	- Without Project[4]	TS	**2**	3	0	0	**4**	0	0	0	0	**1**	1	1	26.5	33.0	C	C
	- With Project[4]	TS	**2**	3	0	0	**4**	0	0	0	0	**1**	1	1	26.7	36.1	C	D
34	Archibald Av. / SR-60 EB Ramps																	
	- Without Project[4,6]	TS	0	**3**	**1**	**2**	3	0	0	1	1	0	0	0	31.2	36.4	C	D
	- With Project[4,6]	TS	0	**3**	**1**	**2**	3	0	0	1	1	0	0	0	33.6	37.3	C	D
35	Archibald Av. / Riverside Dr.																	
	- Without Project	TS	**2**	3	0	**2**	3	0	1	2	d	1	2	**1>**	48.0	53.6	C	D
	- With Project	TS	**2**	3	0	**2**	3	0	1	2	d	1	2	**1>**	50.9	55.0	D	D
37	Archibald Av. / Schaefer Av.																	
	- Without Project	TS	**1**	2	0	1	2	0	**1**	**1**	0	**1**	**1**	0	14.2	16.3	C	B
	- With Project	TS	**1**	2	0	1	2	0	**1**	**1**	0	**1**	**1**	0	15.2	17.2	B	B
38	Archibald Av. / Ontario Ranch Rd.																	
	- Without Project	TS	**2**	**3**	**1>**	1	**3**	1	2	2	1>>	2	1	1	38.0	47.9	C	D
	- With Project	TS	**2**	**3**	**1>**	1	**3**	1	2	2	1>>	2	1	1	39.0	49.7	D	D
40	Archibald Av. / Merrill Av.																	
	- Without Project	TS	**2**	**3**	1	2	**3**	**1>**	**2**	**2**	**1>>**	**2**	**2**	1	50.9	51.4	D	D
	- With Project	TS	**2**	**3**	1	2	**3**	**1>**	**2**	**2**	**1>>**	**2**	**2**	1	54.1	53.3	D	D
41	Archibald Av. / Limonite Av.																	
	- Without Project	TS	0	**2**	1>	**2**	**2**	0	0	0	0	**2**	0	**2>**	21.2	34.2	C	C
	- With Project	TS	0	**2**	1>	**2**	**2**	0	0	0	0	**2**	0	**2>**	22.2	36.8	C	D
42	Harrison Av. / Limonite Av.																	
	- Without Project	TS	1	1	1	1	1	0	1	3	d	1	**3**	1	32.4	25.5	C	C
	- With Project	TS	1	1	1	1	1	0	1	3	d	1	**3**	1	32.6	25.5	C	C
45	Hamner Av. / Limonite Av.																	
	- Without Project	TS	2	3	**1>**	2	2	1	2	3	1	2	**3**	1	35.6	48.3	D	D
	- With Project	TS	2	3	**1>**	2	2	1	2	3	1	2	**3**	1	36.0	49.1	D	D

[1]When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4]Includes modifying the coordinated cycle length from 90 seconds to 120 seconds.

[5]Includes new lanes on the westbound approach, implementing split phase for the eastbound and westbound approaches, and removing the eastbound (south leg) crosswalk.

[6]Recommended improvement consists of restriping the EB shared left-through lane as a shared left-through-right turn lane.

Source: (Urban Crossroads, 2018e, Table 6-6)

Table 4.14-34 Horizon Year (2040) Intersection Analysis – With Mitigation

Without Limonite Extension

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	Euclid Av. (SR-83) / SR-60 WB Ramps																	
	- Without Project[4]	TS	2	2	0	0	2	1	0	0	0	1	1	1	38.4	29.5	D	C
	- With Project[4]	TS	2	2	0	0	2	1	0	0	0	1	1	1	41.0	30.0	D	C
2	Euclid Av. (SR-83) / SR-60 EB Ramps																	
	- Without Project[4]	TS	0	2	1>>	2	2	0	1	1	1	0	0	0	22.6	23.8	C	C
	- With Project[4]	TS	0	2	1>>	2	2	0	1	1	1	0	0	0	23.1	24.4	C	C
4	Euclid Av. (SR-83) / Riverside Dr.																	
	- Without Project[4]	TS	2	3	1	2	3	1>	1	2	1	2	2	d	42.5	43.4	D	D
	- With Project[4]	TS	2	3	1	2	3	1>	1	2	1	2	2	d	43.4	44.6	D	D
5	Euclid Av. (SR-83) / Chino Av.																	
	- Without Project[4]	TS	1	3	1	1	3	1	1	1	1	1	1	0	40.4	34.4	D	C
	- With Project[4]	TS	1	3	1	1	3	1	1	1	1	1	1	0	41.4	35.5	D	D
6	Euclid Av. (SR-83) / Schaefer Av.																	
	- Without Project[4]	TS	2	3	1	2	3	1	2	1	1	1	1	0	37.0	50.5	D	D
	- With Project[4]	TS	2	3	1	2	3	1	2	1	1	1	1	0	38.4	52.9	D	D
7	Euclid Av. (SR-83) / Edison Av.																	
	- Without Project[4]	TS	2	3	1	2	3	1>	2	2	1	2	2	1>	52.5	52.6	D	D
	- With Project[4]	TS	2	3	1	2	3	1>	2	2	1	2	2	1>	54.7	53.8	D	D
8	Euclid Av. (SR-83) / Eucalyptus Av.																	
	- Without Project[4]	TS	1	3	1	1	3	1	1	1	1	1	1	0	25.2	21.1	C	C
	- With Project[4]	TS	1	3	1	1	3	1	1	1	1	1	1	0	26.0	21.5	C	C
9	Euclid Av. (SR-83) / Merrill Av.																	
	- Without Project[4]	TS	1	3	1	2	3	0	0	1	0	1	1	1>	23.4	43.1	C	D
	- With Project[4]	TS	1	3	1	2	3	0	0	1	0	1	1	1>	25.1	53.3	C	D
10	Euclid Av. (SR-83) / Kimball Av.																	
	- Without Project[4]	TS	1	3	1>	2	3	1>	2	2	0	2	2	1>	32.2	44.0	C	D
	- With Project[4]	TS	1	3	1>	2	3	1>	2	2	0	2	2	1>	32.6	45.0	C	D
11	Euclid Av. (SR-83) / Bickmore Av.																	
	- Without Project[4,5]	TS	1	3	0	1	3	1	1	1	1	1	1	1	29.3	41.7	C	D
	- With Project[4,5]	TS	1	3	0	1	3	1	1	1	1	1	1	1	29.4	42.4	C	D
12	Euclid Av. (SR-83) / Pine Av.																	
	- Without Project[4]	TS	1	3	1>>	2	3	1	1	2	1	2	2	1	47.7	53.0	D	D
	- With Project[4]	TS	1	3	1>>	2	3	1	1	2	1	2	2	1	48.5	53.3	D	D
14	SR-71 SB Ramps / Euclid Av. (SR-83)																	
	- Without Project	TS	1	0	1	2	1	0	0	2	0	1	2	1>>	52.5	27.9	D	C
	- With Project		Not Applicable															
15	Bon View Av. / Merrill Av.																	
	- Without Project	CSS	0	0	0	0	1	0	1	2	0	0	2	0	13.4	19.0	B	C
	- With Project	CSS	0	0	0	0	1	0	1	2	0	0	2	0	15.7	22.1	C	C
18	Grove Av. / Merrill Av.																	
	- Without Project	TS	0	0	0	0	1	0	1	2	0	0	2	0	17.7	19.5	B	B
	- With Project	TS	0	0	0	0	1	0	1	2	0	0	2	0	19.5	20.3	B	C

Table 4.14-34 Horizon Year (2040) Intersection Analysis – With Mitigation (cont.)

Without Limonite Extension

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
20	Flight Av. / Merrill Av.																	
	- Without Project	TS	1	1	0	1	1	0	1	2	1>	1	2	0	47.6	31.7	D	C
	- With Project	TS	1	1	0	1	1	0	1	2	1>	1	2	0	54.4	48.9	D	D
25	Flight Av. / Kimball Av.																	
	- Without Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	20.0	45.5	C	D
	- With Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	23.1	52.9	C	D
26	Baker Av./Van Vliet Av. / Merrill Av.																	
	- Without Project	TS	0	1	0	0	0	0	0	2	0	1	2	0	7.7	7.8	A	A
	- With Project	TS	0	1	0	0	0	0	0	2	0	1	2	0	9.9	9.7	A	A
28	Hellman Av. / Merrill Av.																	
	- Without Project	TS	2	1	1>	1	1	0	1	2	1	1	2	1	27.9	34.4	C	D
	- With Project	TS	2	1	1>	1	1	0	1	2	1	1	2	1	31.4	34.9	C	C
29	Hellman Av. / Kimball Av.																	
	- Without Project	TS	2	2	0	1	2	1	1	1	1>	1	1	0	24.3	22.3	C	C
	- With Project	TS	2	2	0	1	2	1	1	1	1>	1	1	0	24.3	22.5	C	C
31	Hellman Av. / Chandler Av.																	
	- Without Project	TS	0	1	1	1	1	0	0	0	0	1	0	1>	17.9	14.6	B	B
	- With Project	Not Applicable																
32	Carpenter Av. / Merrill Av.																	
	- Without Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	8.7	8.9	A	A
	- With Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	10.6	10.6	B	B
33	Archibald Av. / SR-60 WB Ramps																	
	- Without Project[4]	TS	2	3	0	0	4	0	0	0	0	1	1	1	24.5	24.8	C	C
	- With Project[4]	TS	2	3	0	0	4	0	0	0	0	1	1	1	24.6	25.9	C	C
34	Archibald Av. / SR-60 EB Ramps																	
	- Without Project[4,6]	TS	0	3	1	2	3	0	0	1	1	0	0	0	44.3	31.4	D	C
	- With Project[4,6]	TS	0	3	1	2	3	0	0	1	1	0	0	0	45.2	31.6	D	C
35	Archibald Av. / Riverside Dr.																	
	- Without Project	TS	2	3	0	2	3	0	1	2	d	1	2	1>	49.4	53.8	D	D
	- With Project	TS	2	3	0	2	3	0	1	2	d	1	2	1>	52.9	55.9	D	E
36	Archibald Av. / Chino Av.																	
	- Without Project	TS	1	3	0	1	3	0	1	1	0	1	1	1	27.8	58.4	C	E
	- With Project	TS	1	3	0	1	3	0	1	1	0	1	1	1	28.7	60.3	C	E
37	Archibald Av. / Schaefer Av.																	
	- Without Project	TS	2	3	0	1	3	1>	1	2	0	1	2	0	24.4	52.7	C	D
	- With Project	TS	2	3	0	1	3	1>	1	2	0	1	2	0	24.7	54.3	C	D
38	Archibald Av. / Ontario Ranch Rd.																	
	- Without Project	TS	2	3	1>	1	3	1	2	3	1>>	2	3	1	48.6	76.8	D	E
	- With Project	TS	2	3	1>	1	3	1	2	3	1>>	2	3	1	49.3	78.5	D	E
39	Archibald Av. / Eucalyptus Av.																	
	- Without Project	TS	1	3	0	1	3	0	1	1	0	1	1	0	40.1	20.1	D	C
	- With Project	TS	1	3	0	1	3	0	1	1	0	1	1	0	40.4	20.4	D	C

Table 4.14-34 Horizon Year (2040) Intersection Analysis – With Mitigation (cont.)

Without Limonite Extension

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
40	Archibald Av. / Merrill Av.																	
	- Without Project	TS	**2**	**3**	1	2	**3**	**1>**	**2**	**2**	**1>>**	**2**	**2**	1	44.1	70.4	D	E
	- With Project	TS	**2**	**3**	1	2	**3**	**1>**	**2**	**2**	**1>>**	**2**	**2**	1	54.0	79.7	D	E
41	Archibald Av. / Limonite Av.																	
	- Without Project	TS	0	**2**	1>	**2**	**2**	0	0	0	0	**2**	0	**2>**	23.5	33.2	C	C
	- With Project	TS	0	**2**	1>	**2**	**2**	0	0	0	0	**2**	0	**2>**	26.1	34.5	C	C
42	Harrison Av. / Limonite Av.																	
	- Without Project	TS	1	1	1	1	1	0	1	3	d	1	**3**	1	19.4	37.9	C	D
	- With Project	TS	1	1	1	1	1	0	1	3	d	1	**3**	1	20.2	38.5	C	D
43	Sumner Av. / Limonite Av.																	
	- Without Project	TS	**2**	2	0	1	2	0	2	3	0	2	3	1	26.0	53.6	C	D
	- With Project	TS	**2**	2	0	1	2	0	2	3	0	2	3	1	26.3	54.8	C	D
44	Scholar Wy. / Limonite Av.																	
	- Without Project	TS	1	1	1	1	2	1	1	**3**	1	1	**3**	1	23.0	33.8	C	C
	- With Project	TS	1	1	1	1	2	1	1	**3**	1	1	**3**	1	23.6	34.7	C	C
45	Hamner Av. / Limonite Av.																	
	- Without Project	TS	2	3	**1>**	2	**3**	**1>**	2	3	1	2	**3**	**1>**	43.3	53.1	D	D
	- With Project	TS	2	3	**1>**	2	**3**	**1>**	2	3	1	2	**3**	**1>**	44.2	54.4	D	D
46	I-15 SB Ramps / Limonite Av.																	
	- Without Project[7]	TS	0	0	0	1	1	**2**	0	**3**	**1>>**	0	**3**	**1>>**	8.3	9.4	A	A
	- With Project[7]	TS	0	0	0	1	1	**2**	0	**3**	**1>>**	0	**3**	**1>>**	8.3	9.5	A	A
47	I-15 NB Ramps / Limonite Av.																	
	- Without Project[7]	TS	1	1	**2**	0	0	0	0	**3**	**1>>**	0	**3**	**1>>**	12.9	15.6	B	B
	- With Project[7]	TS	1	1	**2**	0	0	0	0	**3**	**1>>**	0	**3**	**1>>**	13.0	15.8	B	B

[1]When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4]Includes modifying the coordinated cycle length from 90 seconds to 120 seconds.

[5]Includes new lanes on the westbound approach, implementing split phase for the eastbound and westbound approaches, and removing the eastbound (south leg) crosswalk.

[6]Recommended improvement consists of restriping the EB shared left-through lane as a shared left-through-right turn lane.

[7]Improvements are consistent with planned partial cloverleaf interchange.

Table 4.14-34 Horizon Year (2040) Intersection Analysis – With Mitigation (cont.)

With Limonite Extension

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	Euclid Av. (SR-83) / SR-60 WB Ramps																	
	- Without Project[4]	TS	2	2	0	0	2	1	0	0	0	1	1	1	38.4	29.2	D	C
	- With Project[4]	TS	2	2	0	0	2	1	0	0	0	1	1	1	40.9	29.5	D	C
2	Euclid Av. (SR-83) / SR-60 EB Ramps																	
	- Without Project[4]	TS	0	2	1>>	2	2	0	1	1	1	0	0	0	22.6	26.4	C	C
	- With Project[4]	TS	0	2	1>>	2	2	0	1	1	1	0	0	0	23.1	26.8	C	C
4	Euclid Av. (SR-83) / Riverside Dr.																	
	- Without Project[4]	TS	2	3	1	2	3	1>	1	2	1	2	2	d	42.3	43.3	D	D
	- With Project[4]	TS	2	3	1	2	3	1>	1	2	1	2	2	d	43.1	44.5	D	D
5	Euclid Av. (SR-83) / Chino Av.																	
	- Without Project[4]	TS	1	3	1	1	3	1	1	1	1	1	1	0	40.0	33.9	D	C
	- With Project[4]	TS	1	3	1	1	3	1	1	1	1	1	1	0	41.0	35.0	D	C
6	Euclid Av. (SR-83) / Schaefer Av.																	
	- Without Project[4]	TS	2	3	1	2	3	1	2	1	1	1	1	0	36.7	49.8	D	D
	- With Project[4]	TS	2	3	1	2	3	1	2	1	1	1	1	0	38.0	52.1	D	D
7	Euclid Av. (SR-83) / Edison Av.																	
	- Without Project[4]	TS	2	3	1	2	3	1>	2	2	1	2	2	1>	52.2	52.1	D	D
	- With Project[4]	TS	2	3	1	2	3	1>	2	2	1	2	2	1>	54.3	53.9	D	D
8	Euclid Av. (SR-83) / Eucalyptus Av.																	
	- Without Project[4]	TS	1	3	1	1	3	1	1	1	1	1	1	0	25.1	21.1	C	C
	- With Project[4]	TS	1	3	1	1	3	1	1	1	1	1	1	0	25.9	21.5	C	C
9	Euclid Av. (SR-83) / Merrill Av.																	
	- Without Project[4]	TS	1	3	1	2	3	0	0	1	0	1	1	1>	23.4	43.1	C	D
	- With Project[4]	TS	1	3	1	2	3	0	0	1	0	1	1	1>	25.1	53.3	C	D
10	Euclid Av. (SR-83) / Kimball Av.																	
	- Without Project[4]	TS	1	3	1>	2	3	1>	2	2	0	2	2	1>	32.2	44.0	C	D
	- With Project[4]	TS	1	3	1>	2	3	1>	2	2	0	2	2	1>	32.6	45.0	C	D
11	Euclid Av. (SR-83) / Bickmore Av.																	
	- Without Project[4,5]	TS	1	3	0	1	3	1	1	1	1	1	1	1	29.3	41.7	C	D
	- With Project[4,5]	TS	1	3	0	1	3	1	1	1	1	1	1	1	29.4	42.4	C	D
12	Euclid Av. (SR-83) / Pine Av.																	
	- Without Project[4]	TS	1	3	1>>	2	3	1	1	2	1	2	2	1	47.7	53.0	D	D
	- With Project[4]	TS	1	3	1>>	2	3	1	1	2	1	2	2	1	48.5	53.3	D	D
14	SR-71 SB Ramps / Euclid Av. (SR-83)																	
	- Without Project	TS	1	0	1	2	1	0	0	2	0	1	2	1>>	52.5	27.9	D	C
	- With Project		Not Applicable															
15	Bon View Av. / Merrill Av.																	
	- Without Project	CSS	0	0	0	0	1	0	1	2	0	0	2	0	13.4	19.0	B	C
	- With Project	CSS	0	0	0	0	1	0	1	2	0	0	2	0	15.7	22.1	C	C
18	Grove Av. / Merrill Av.																	
	- Without Project	TS	0	0	0	0	1	0	1	2	0	0	2	0	14.6	16.2	B	B
	- With Project	TS	0	0	0	0	1	0	1	2	0	0	2	0	15.7	16.6	B	B

Table 4.14-34 Horizon Year (2040) Intersection Analysis – With Mitigation (cont.)

With Limonite Extension

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
20	Flight Av. / Merrill Av.																	
	- Without Project	TS	1	1	0	1	1	0	1	2	1>	1	2	0	30.0	32.8	C	C
	- With Project	TS	1	1	0	1	1	0	1	2	1>	1	2	0	30.0	35.1	C	D
24	Flight Av. / Remington Av.																	
	- Without Project	TS	0	1	0	1	1	1	0	0	0	0	1	0	8.0	8.8	A	A
	- With Project		Not Applicable															
25	Flight Av. / Kimball Av.																	
	- Without Project	TS	0	1	0	0	1	0	1	2	0	1	2	1	26.8	47.8	C	D
	- With Project	TS	0	1	0	0	1	0	1	2	0	1	2	1	33.2	54.2	C	D
26	Baker Av./Van Vliet Av. / Merrill Av.																	
	- Without Project	TS	0	1	0	0	0	0	0	2	0	1	2	0	10.2	9.8	B	A
	- With Project	TS	0	1	0	0	0	0	0	2	0	1	2	0	10.2	9.8	B	A
27	Meadow Valley Av. / Kimball Av.																	
	- Without Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	24.8	22.7	C	C
	- With Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	24.9	23.3	C	C
28	Hellman Av. / Merrill Av.																	
	- Without Project	TS	2	1	1>	1	1	0	1	2	1	1	2	1	27.5	34.4	C	C
	- With Project	TS	2	1	1>	1	1	0	1	2	1	1	2	1	29.4	35.1	C	D
29	Hellman Av. / Kimball Av.																	
	- Without Project	TS	2	2	1>	1	2	1	1	2	1>	2	2	1	23.9	32.9	C	C
	- With Project	TS	2	2	1>	1	2	1	1	2	1>	2	2	1	24.2	33.3	C	C
30	Hellman Av. / Pine Av.																	
	- Without Project	TS	2	2	1	2	2	1>	2	3	1>	2	3	1>	28.4	35.0	C	D
	- With Project	TS	2	2	1	2	2	1>	2	3	1>	2	3	1>	28.6	35.1	C	D
31	Hellman Av. / Chandler Av.																	
	- Without Project	TS	0	1	1	1	1	0	0	0	0	1	0	1>	17.9	14.6	B	B
	- With Project		Not Applicable															
32	Carpenter Av. / Merrill Av.																	
	- Without Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	11.6	8.9	B	A
	- With Project	TS	0	1	0	0	1	0	1	2	0	1	2	0	11.7	10.6	B	B
33	Archibald Av. / SR-60 WB Ramps																	
	- Without Project[4]	TS	2	3	0	0	4	0	0	0	0	1	1	1	24.5	24.8	C	C
	- With Project[4]	TS	2	3	0	0	4	0	0	0	0	1	1	1	24.6	25.9	C	C
34	Archibald Av. / SR-60 EB Ramps																	
	- Without Project[4,6]	TS	0	3	1	2	3	0	0	1	1	0	0	0	44.3	31.4	D	C
	- With Project[4,6]	TS	0	3	1	2	3	0	0	1	1	0	0	0	45.2	31.6	D	C
35	Archibald Av. / Riverside Dr.																	
	- Without Project	TS	2	3	0	2	3	0	1	2	d	1	2	1>	49.4	53.8	D	D
	- With Project	TS	2	3	0	2	3	0	1	2	d	1	2	1>	52.9	55.9	D	E
36	Archibald Av. / Chino Av.																	
	- Without Project	TS	1	3	0	1	3	0	1	1	0	1	1	1	27.8	58.4	C	E
	- With Project	TS	1	3	0	1	3	0	1	1	0	1	1	1	28.7	60.3	C	E

Table 4.14-34 Horizon Year (2040) Intersection Analysis – With Mitigation (cont.)

With Limonite Extension

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
37	Archibald Av. / Schaefer Av.																	
	- Without Project	TS	2	3	0	1	3	1>	1	2	0	1	2	0	24.4	52.7	C	D
	- With Project	TS	2	3	0	1	3	1>	1	2	0	1	2	0	24.7	54.3	C	D
38	Archibald Av. / Ontario Ranch Rd.																	
	- Without Project	TS	2	3	1>	1	3	1	2	3	1>>	2	3	1	48.6	76.8	D	E
	- With Project	TS	2	3	1>	1	3	1	2	3	1>>	2	3	1	49.3	78.5	D	E
39	Archibald Av. / Eucalyptus Av.																	
	- Without Project	TS	1	3	0	1	3	0	1	1	0	1	1	0	40.1	20.1	D	C
	- With Project	TS	1	3	0	1	3	0	1	1	0	1	1	0	40.4	20.4	D	C
40	Archibald Av. / Merrill Av.																	
	- Without Project	TS	2	3	1	2	3	1>	2	2	1>>	2	2	1	25.3	47.8	C	D
	- With Project	TS	2	3	1	2	3	1>	2	2	1>>	2	2	1	28.0	55.6	C	E
41	Archibald Av. / Limonite Av.																	
	- Without Project	TS	1	3	1>	2	3	1	2	2	0	2	2	2>	43.0	48.9	D	D
	- With Project	TS	1	3	1>	2	3	1	2	2	0	2	2	2>	52.2	49.5	D	D
42	Harrison Av. / Limonite Av.																	
	- Without Project	TS	1	1	1	1	1	0	1	3	d	1	3	1	20.1	37.9	C	D
	- With Project	TS	1	1	1	1	1	0	1	3	d	1	3	1	20.2	38.5	C	D
43	Sumner Av. / Limonite Av.																	
	- Without Project	TS	2	2	0	1	2	0	2	3	0	2	3	1	26.0	53.6	C	D
	- With Project	TS	2	2	0	1	2	0	2	3	0	2	3	1	26.3	54.8	C	D
44	Scholar Wy. / Limonite Av.																	
	- Without Project	TS	1	1	1	1	2	1	1	3	1	1	3	1	23.0	33.8	C	C
	- With Project	TS	1	1	1	1	2	1	1	3	1	1	3	1	23.6	34.7	C	C
45	Hamner Av. / Limonite Av.																	
	- Without Project	TS	2	3	1>	2	3	1>	2	3	1	2	3	1>	43.3	53.1	D	D
	- With Project	TS	2	3	1>	2	3	1>	2	3	1	2	3	1>	44.2	54.4	D	D
46	I-15 SB Ramps / Limonite Av.																	
	- Without Project[7]	TS	0	0	0	1	1	2	0	3	1>>	0	3	1>>	8.3	9.4	A	A
	- With Project[7]	TS	0	0	0	1	1	2	0	3	1>>	0	3	1>>	8.3	9.5	A	A
47	I-15 NB Ramps / Limonite Av.																	
	- Without Project[7]	TS	1	1	2	0	0	0	0	3	1>>	0	3	1>>	12.9	15.6	B	B
	- With Project[7]	TS	1	1	2	0	0	0	0	3	1>>	0	3	1>>	13.0	15.8	B	B

[1]When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2]Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3]CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

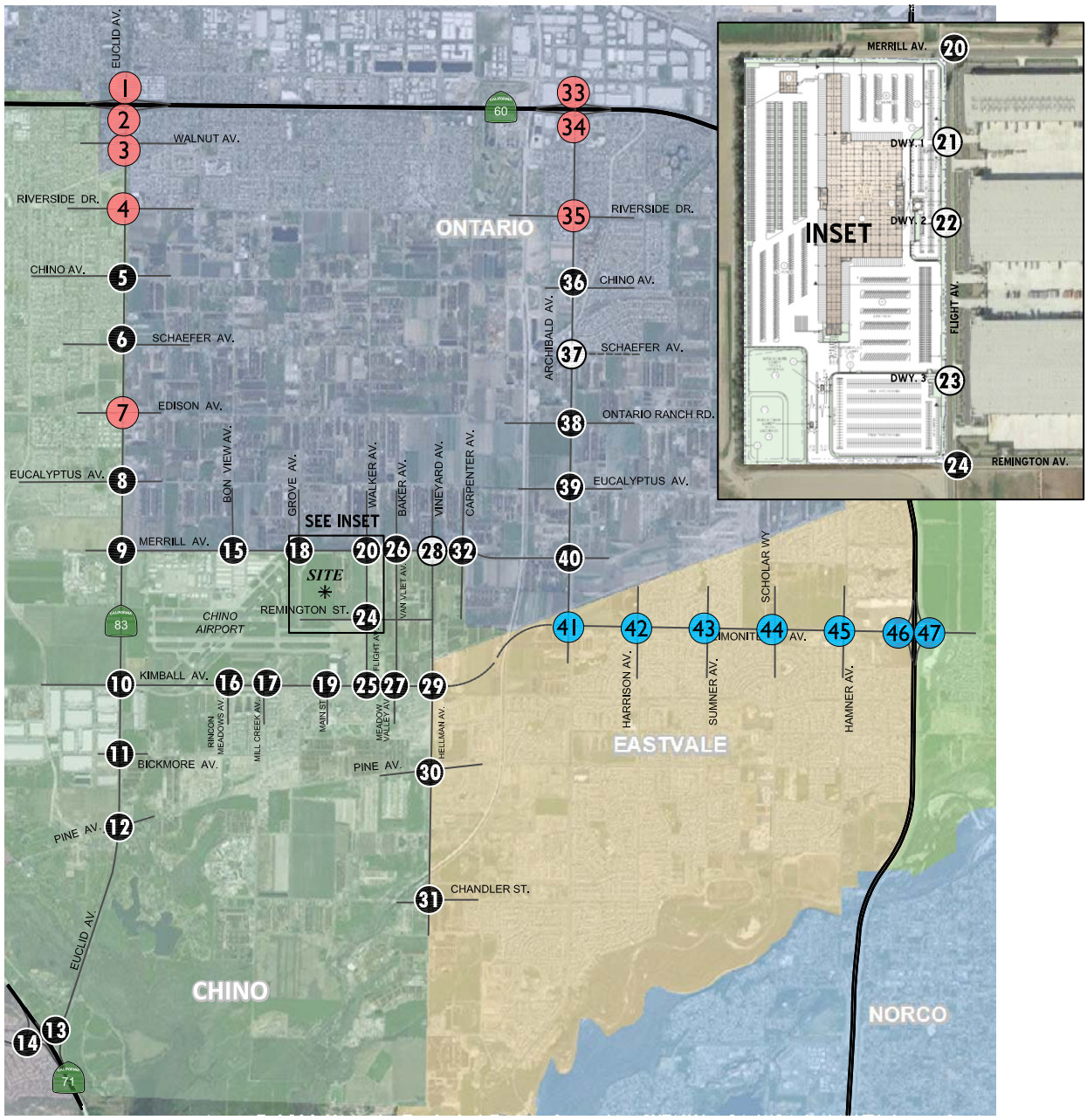
[4]Includes modifying the coordinated cycle length from 90 seconds to 120 seconds.

[5]Includes new lanes on the westbound approach, implementing split phase for the eastbound and westbound approaches, and removing the eastbound (south leg) crosswalk.

[6]Recommended improvement consists of restriping the EB shared left-through lane as a shared left-through-right turn lane.

[7]Improvements are consistent with planned partial cloverleaf interchange.

Source: (Urban Crossroads, 2018e, Tables 7-8 and 7-9)

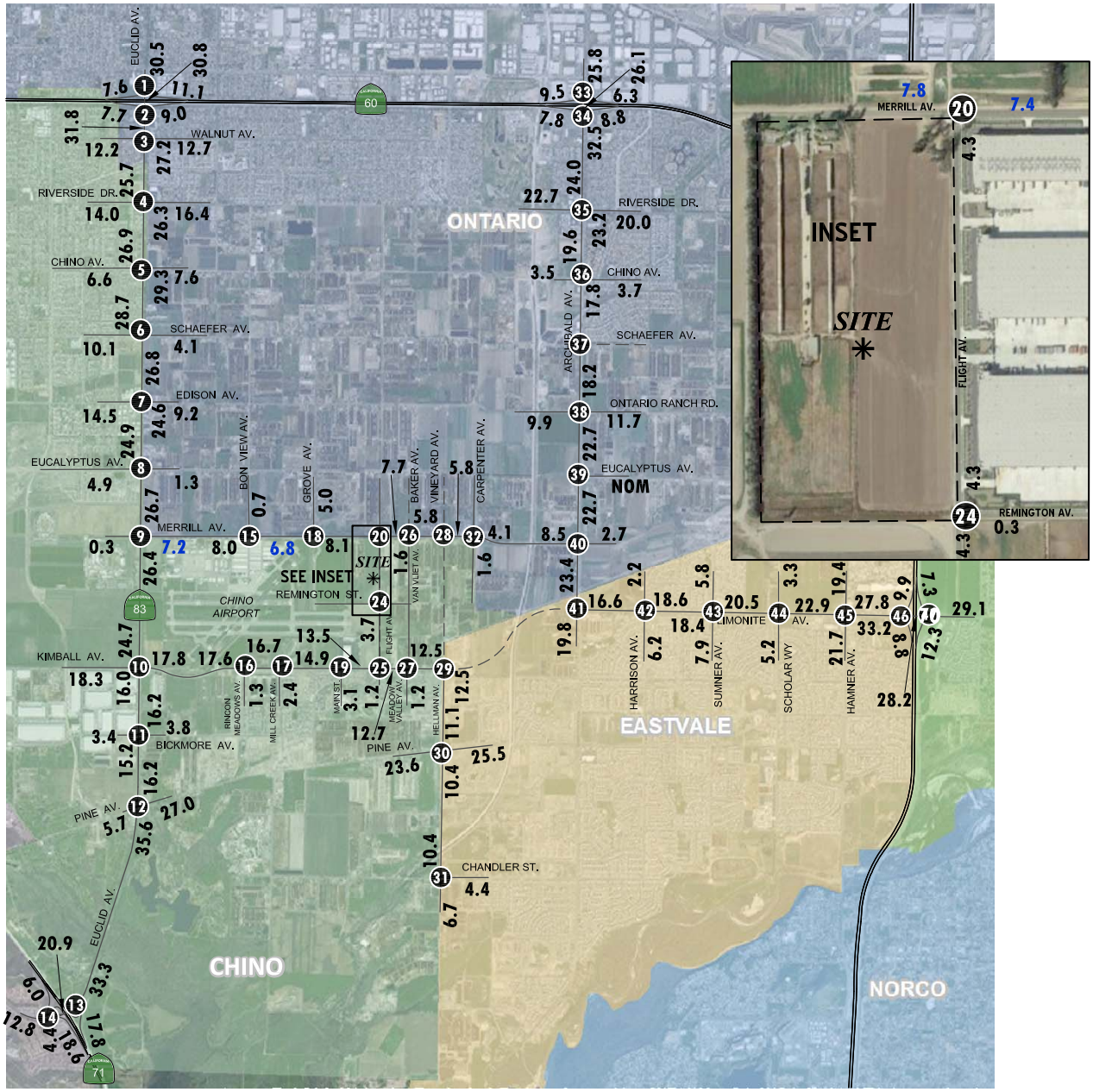


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-1

NOT TO SCALE

STUDY AREA INTERSECTION LOCATIONS



LEGEND:

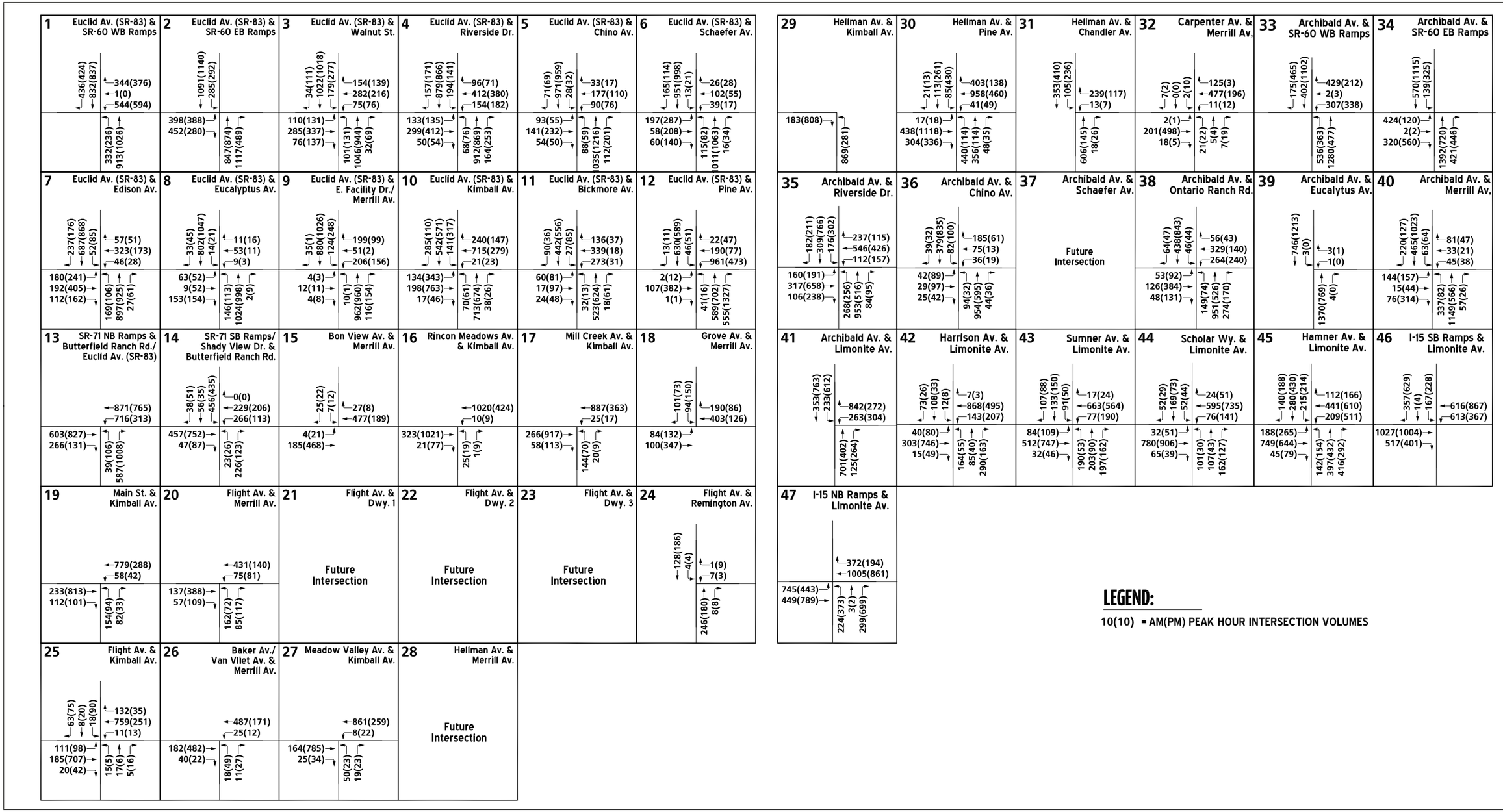
10.0 = ACTUAL (COUNT-BASED) VEHICLES PER DAY (1000'S)
10.0 = ESTIMATED VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-2

NOT TO SCALE

EXISTING AVERAGE DAILY TRAFFIC (PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

Source(s): Urban Crossroads (11-13-2018)

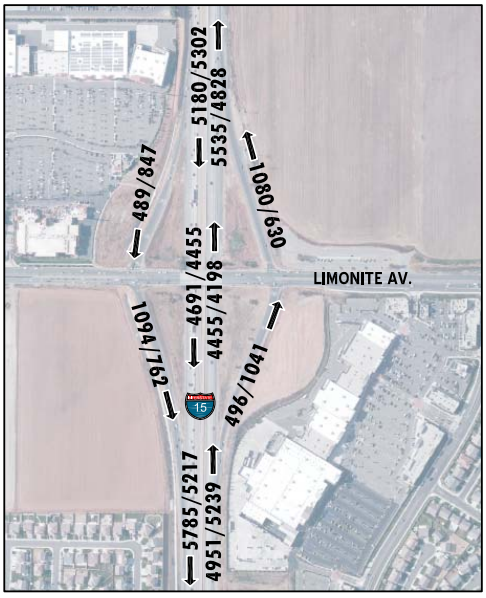
Figure 4.14-3

NOT TO SCALE

EXISTING PEAK HOUR INTERSECTION VOLUMES (PCE)

LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

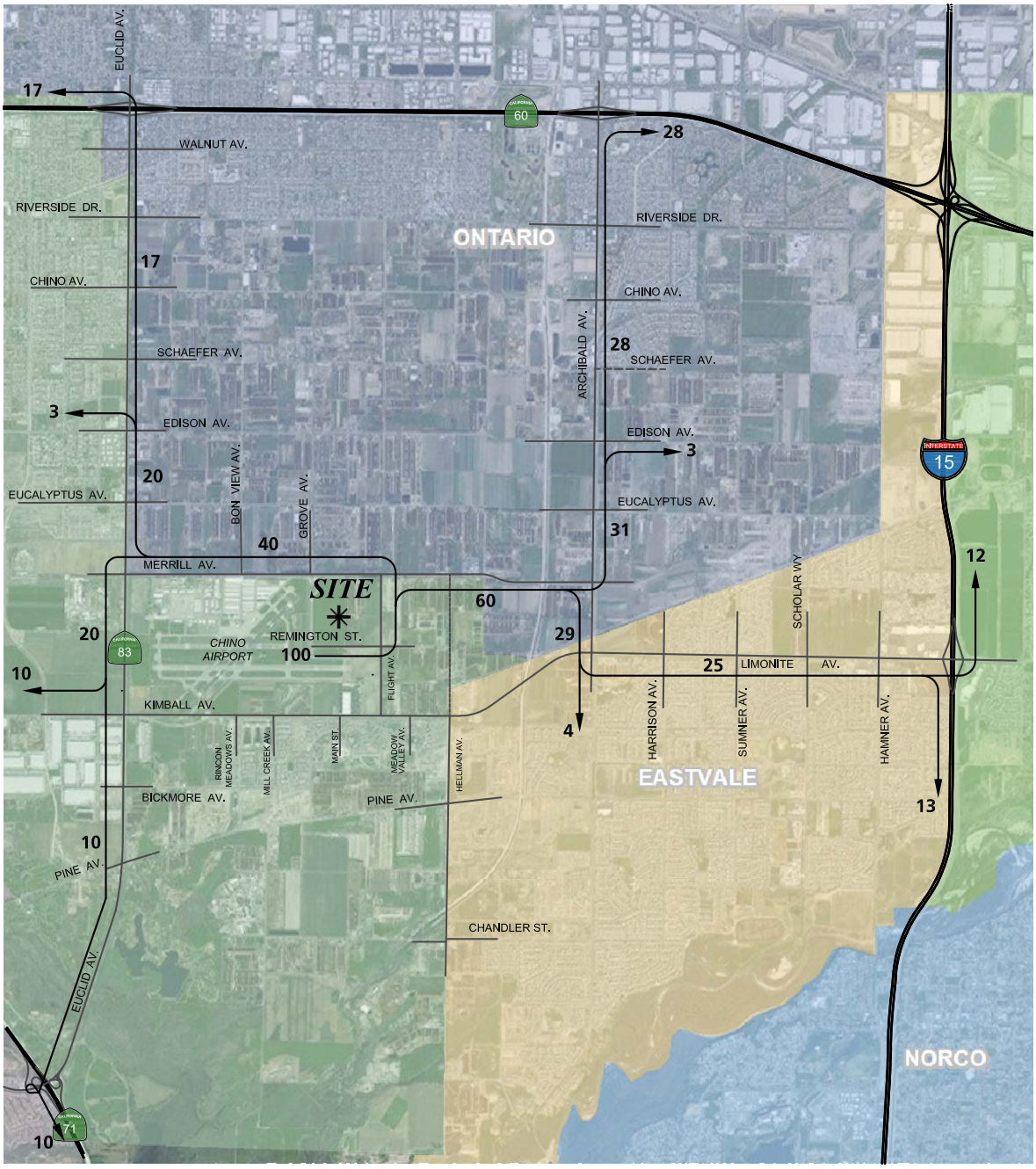


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-4

NOT TO SCALE

EXISTING FREEWAY MAINLINE VOLUMES (ACTUAL VEHICLES)



LEGEND:

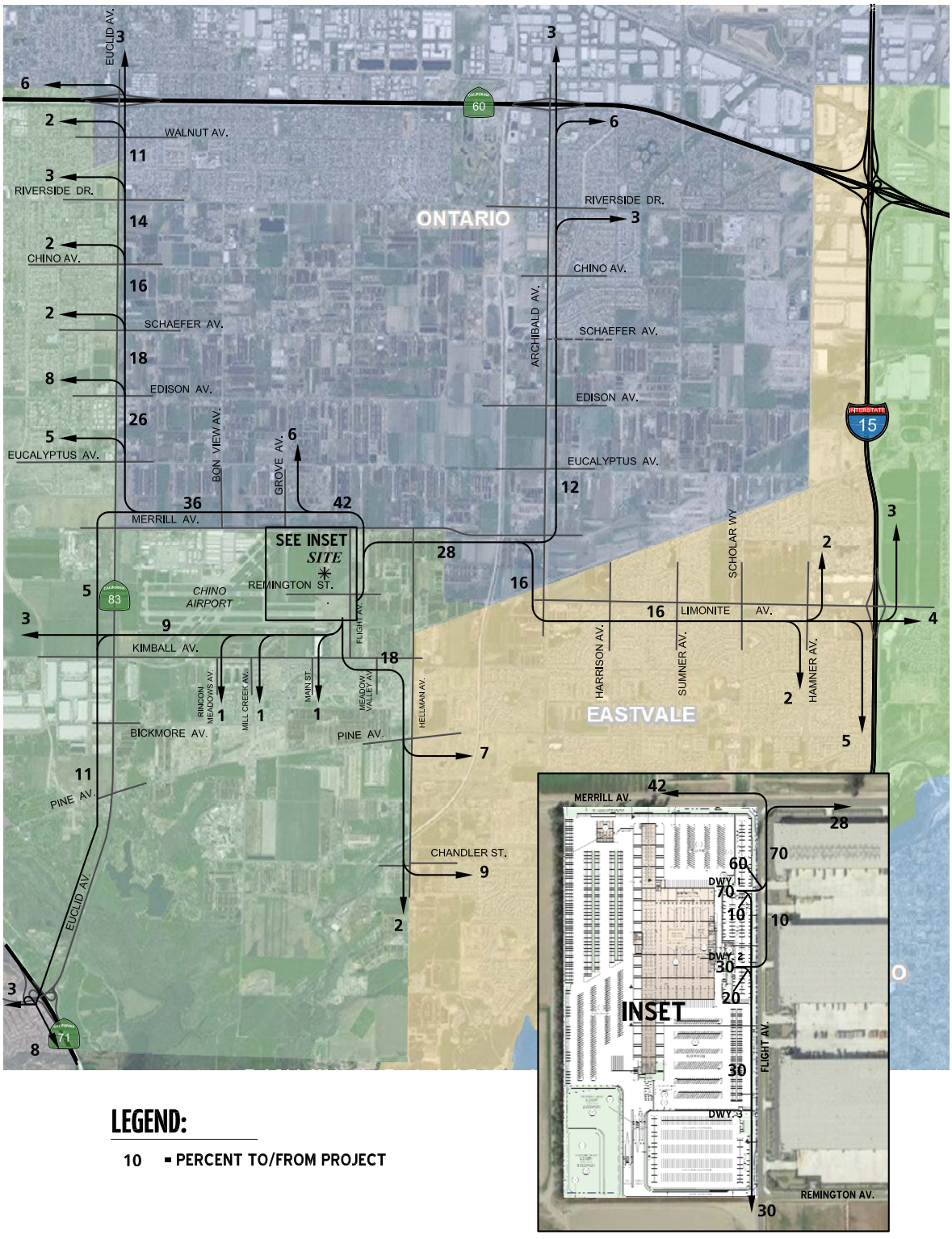
10 = PERCENT TO/FROM PROJECT

Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-5

NOT TO SCALE

PROJECT TRUCK TRIP DISTRIBUTION

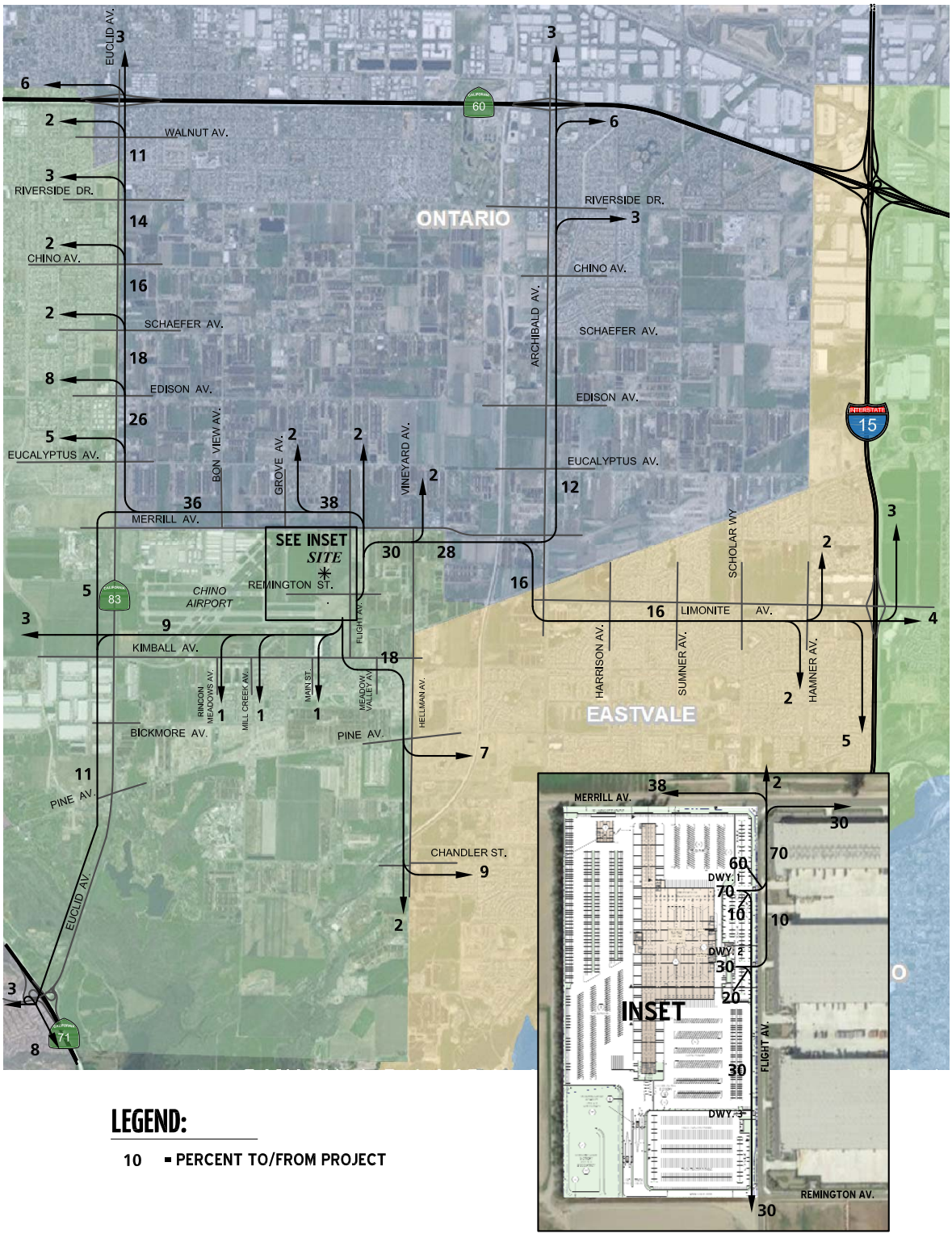


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-6

NOT TO SCALE

PROJECT PASSENGER CAR TRIP DISTRIBUTION – NEAR-TERM

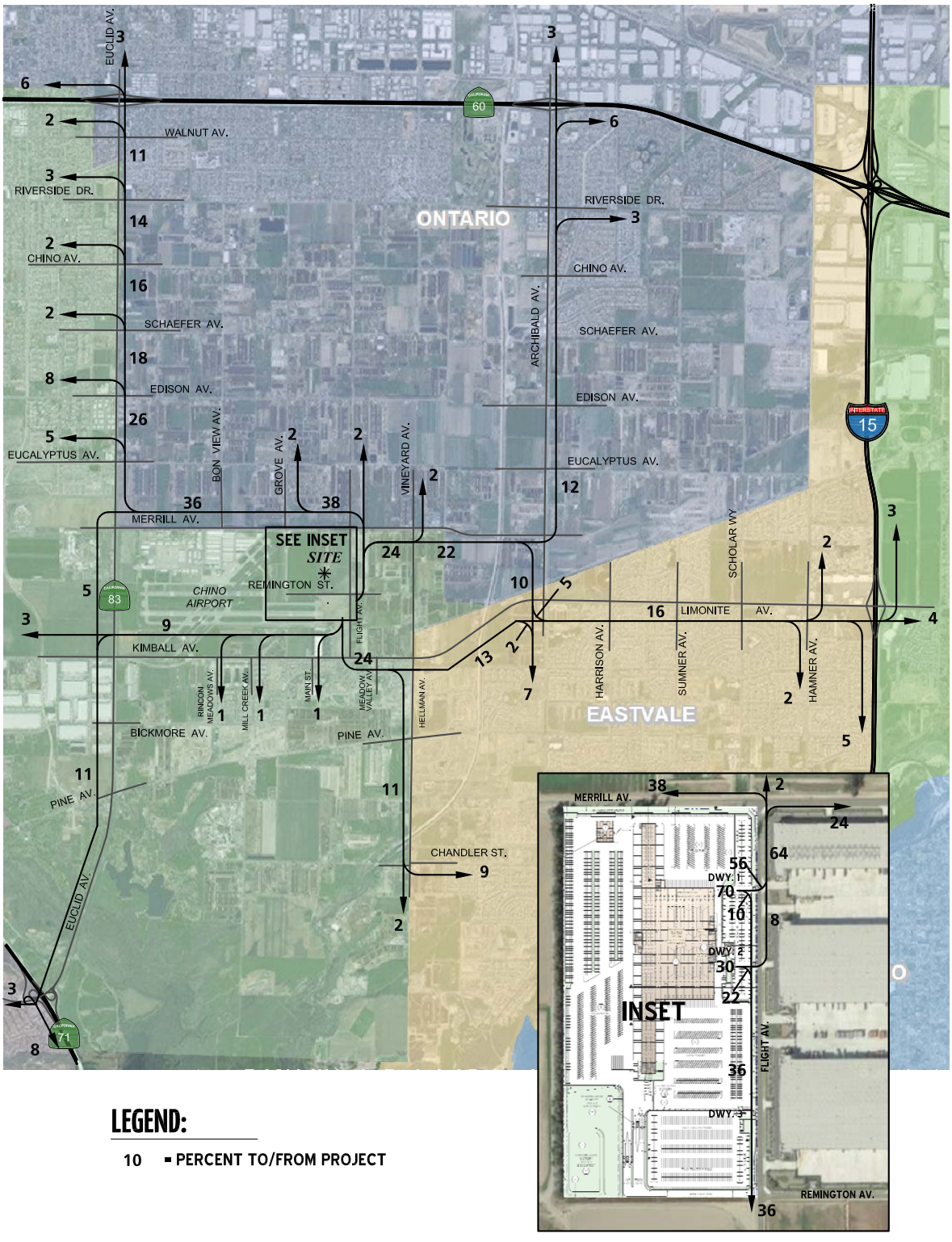


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-7

NOT TO SCALE

PROJECT PASSENGER CAR TRIP DISTRIBUTION – HORIZON YEAR WITHOUT LIMONITE EXTENSION

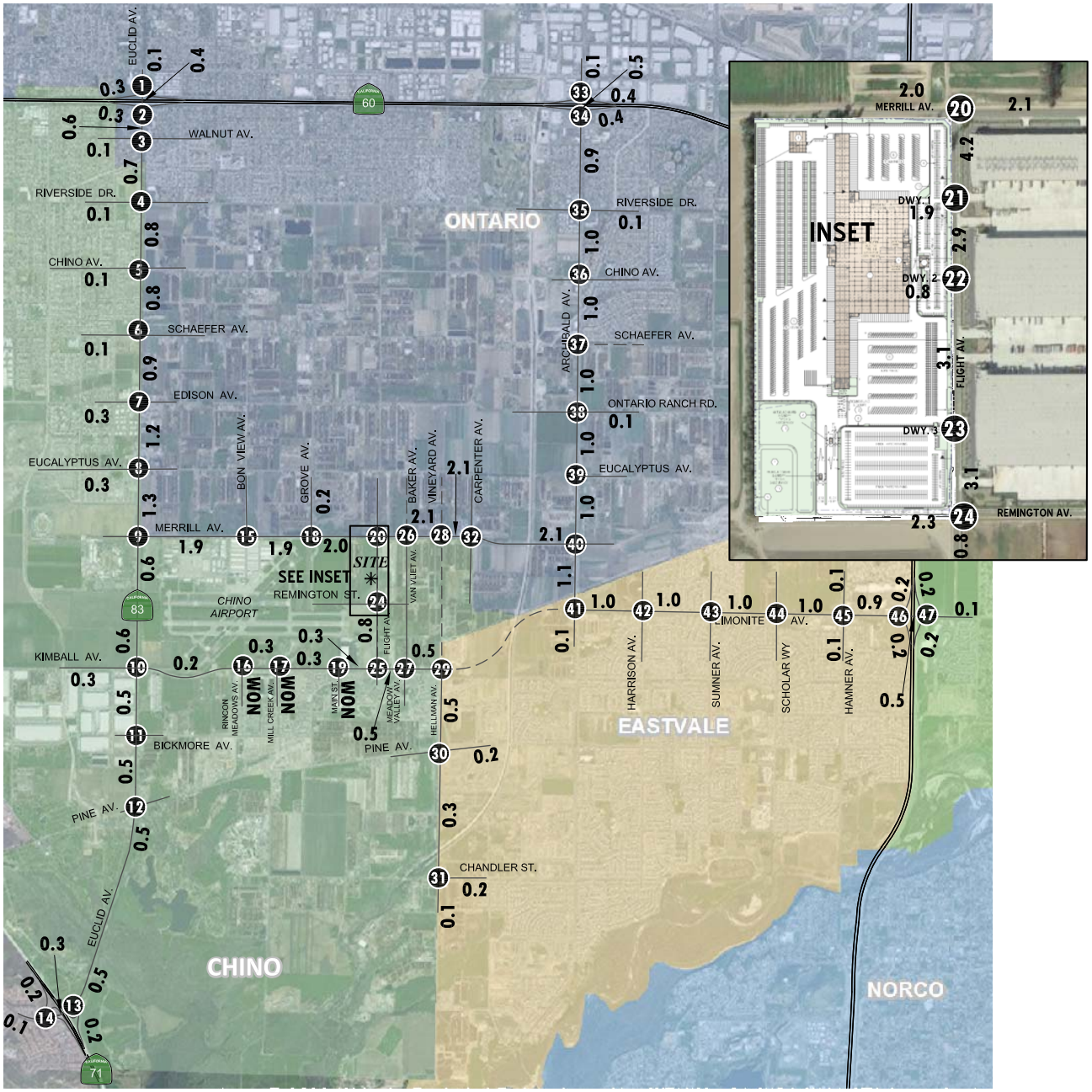


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-8

NOT TO SCALE

PROJECT PASSENGER CAR TRIP DISTRIBUTION – HORIZON YEAR WITH LIMONITE EXTENSION



LEGEND:

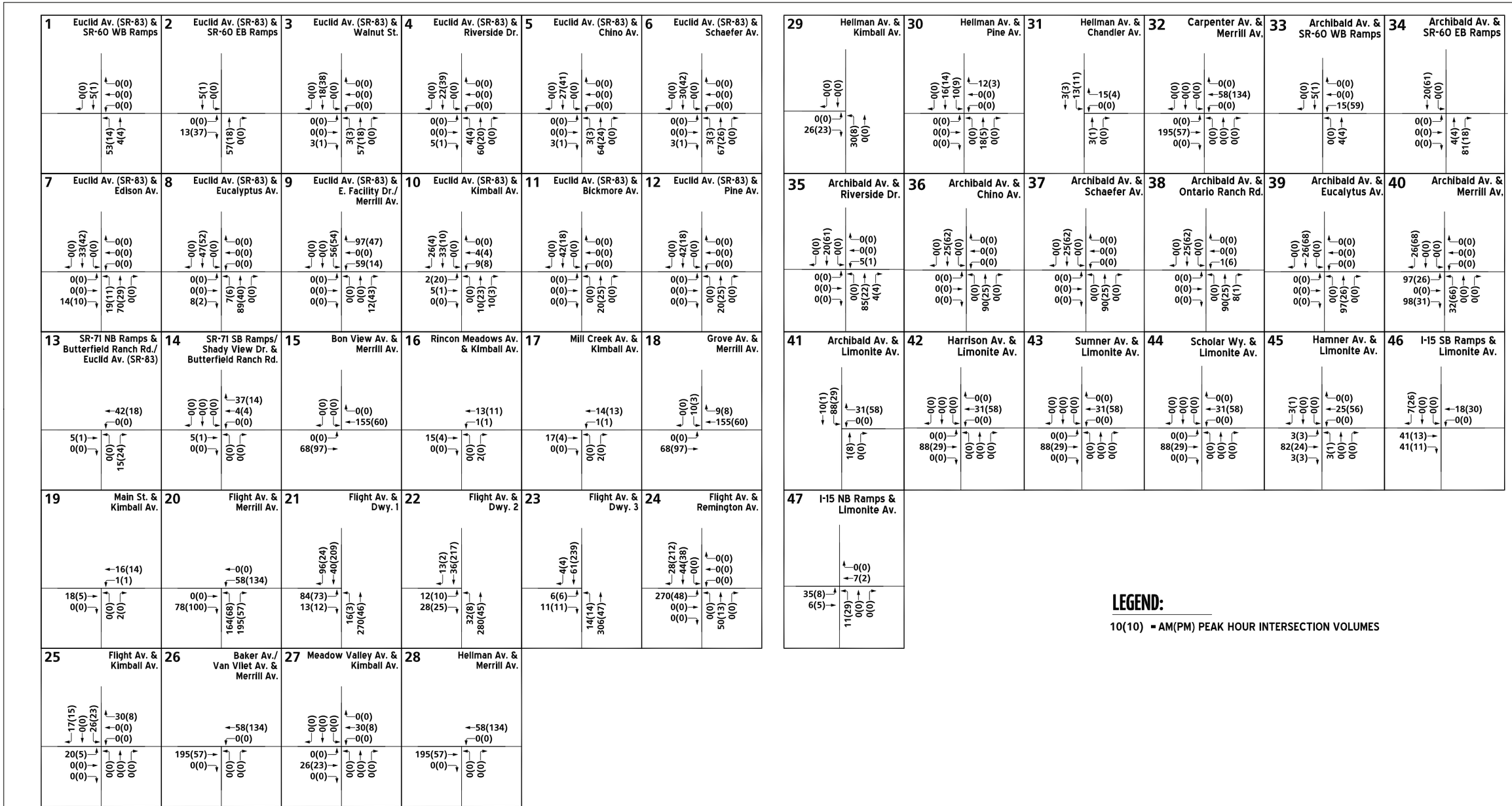
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-9

NOT TO SCALE

PROJECT AVERAGE DAILY TRAFFIC – NEAR-TERM

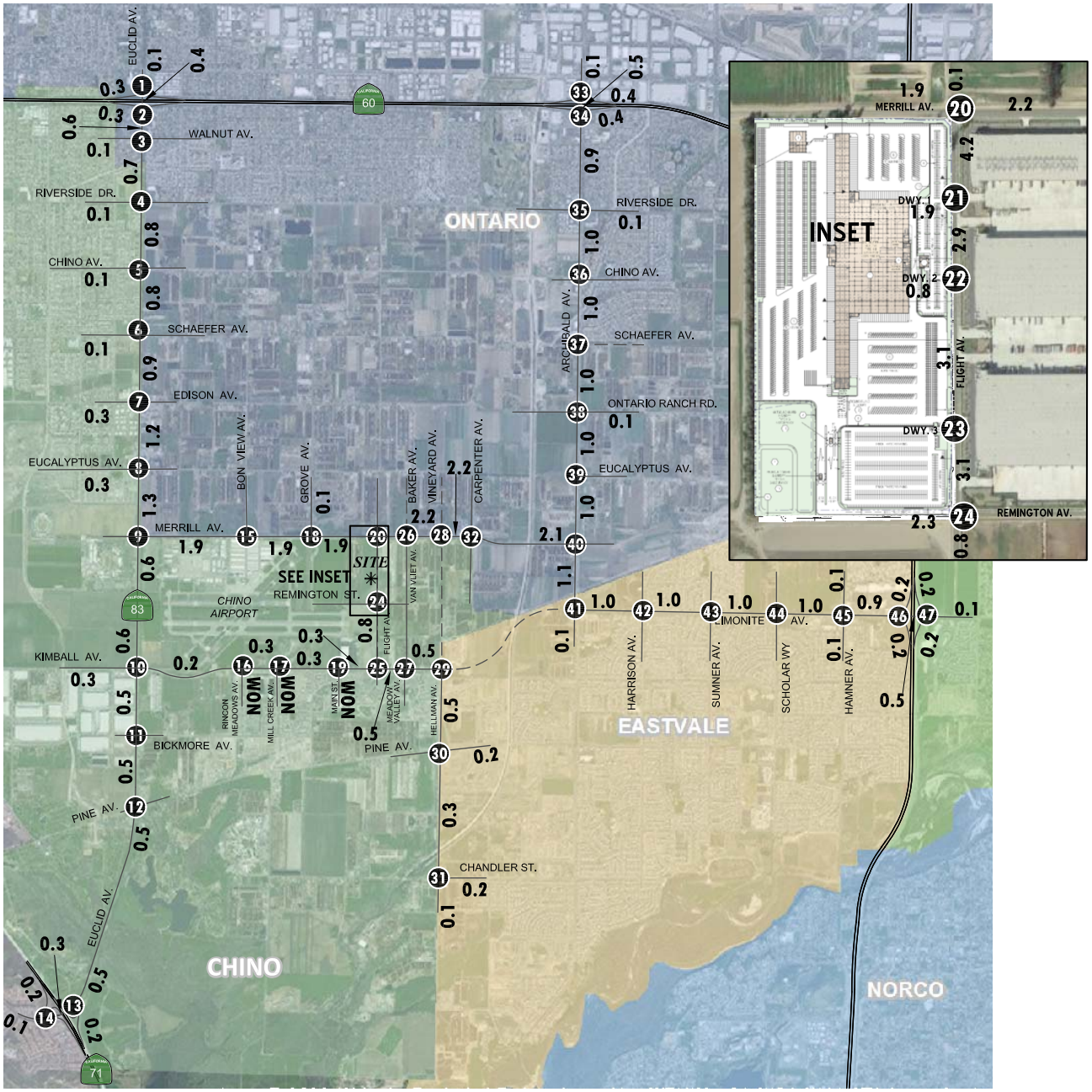


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-10

NOT TO SCALE

PROJECT PEAK HOUR TRAFFIC VOLUMES – NEAR-TERM



LEGEND:

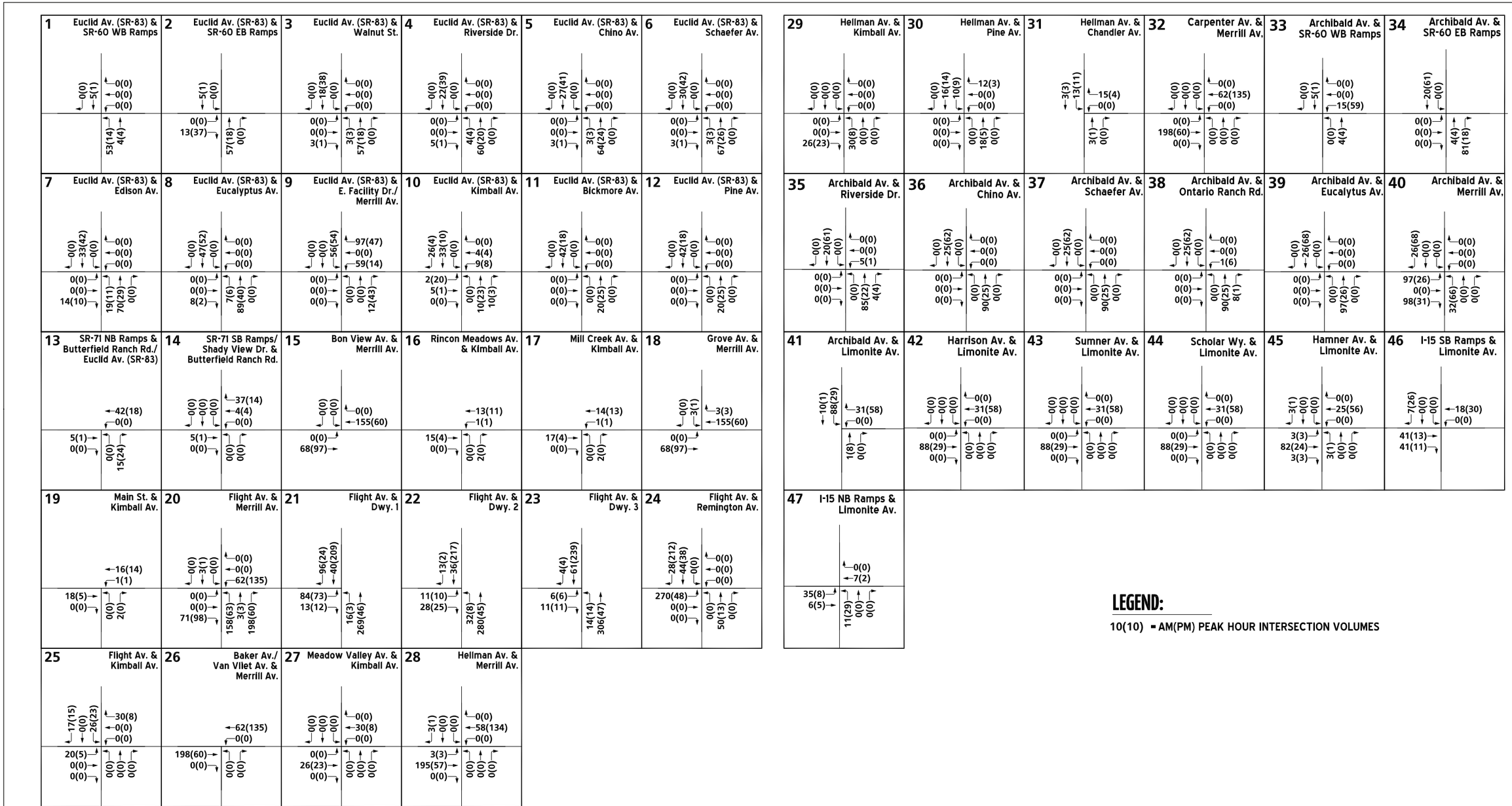
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source(s): Urban Crossroads (11-13-2018)

NOT TO SCALE

Figure 4.14-11

PROJECT AVERAGE DAILY TRAFFIC – HORIZON YEAR WITHOUT LIMONITE EXTENSION

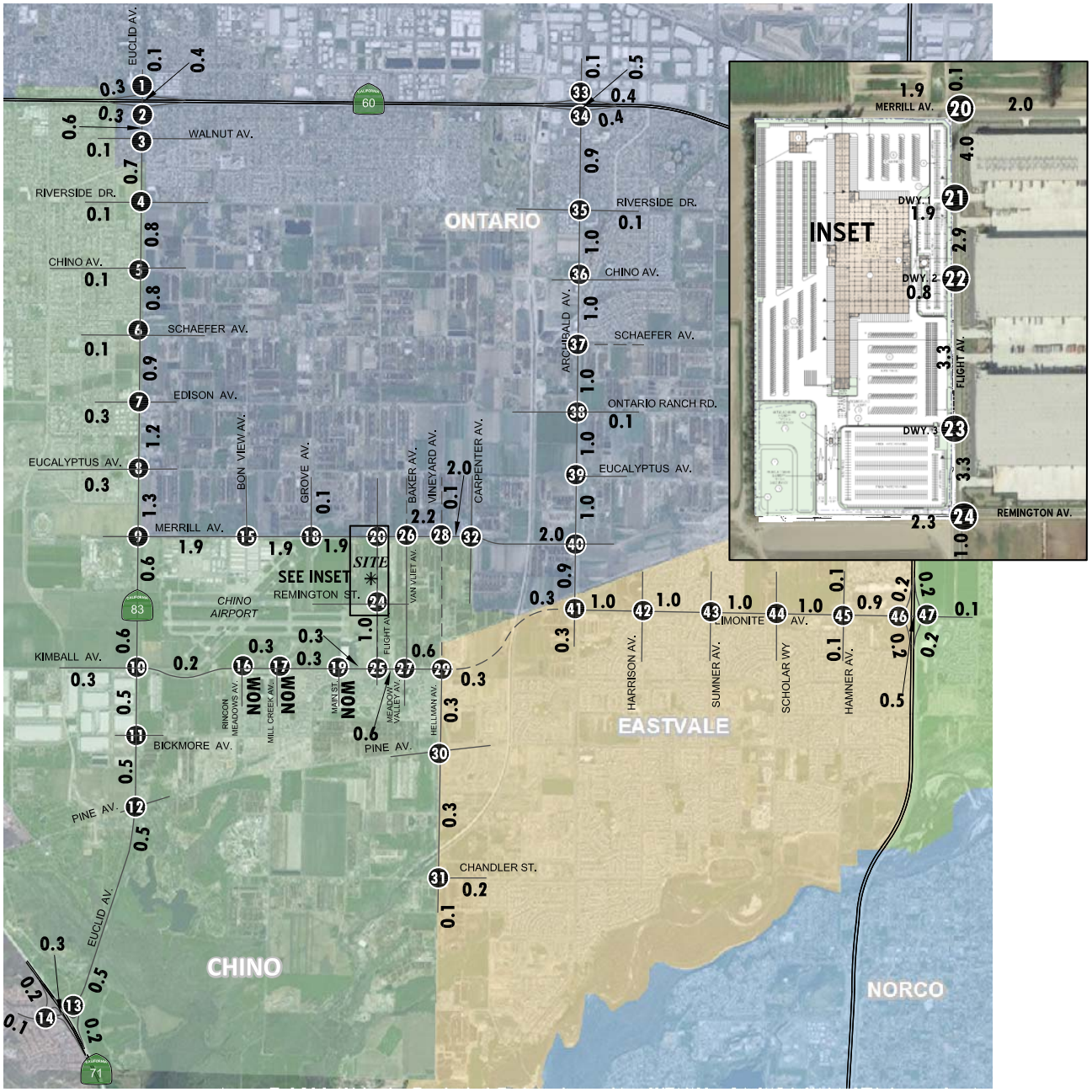


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-12

NOT TO SCALE

PROJECT PEAK HOUR TRAFFIC VOLUMES – HORIZON YEAR WITHOUT LIMONITE EXTENSION



LEGEND:

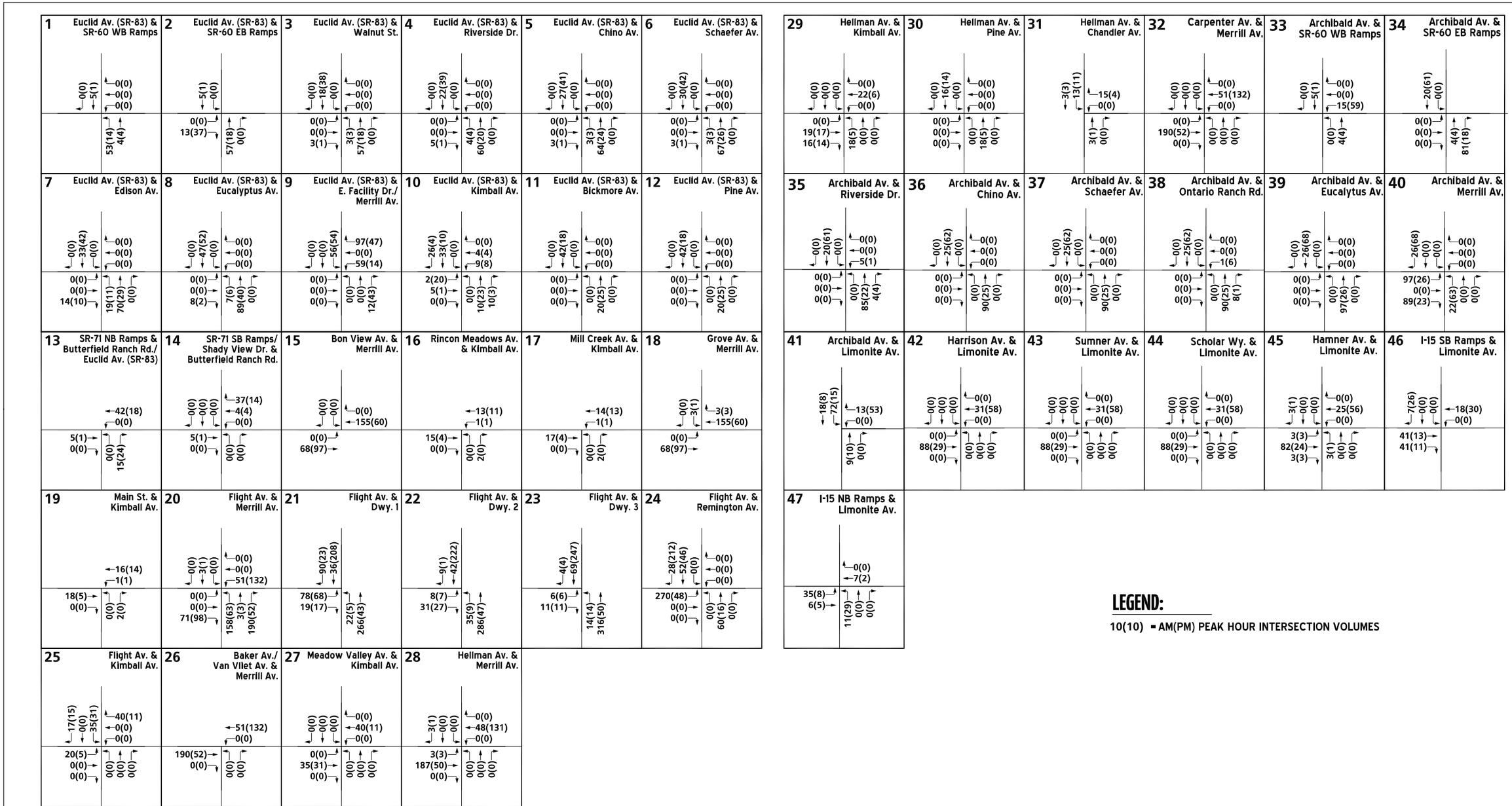
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source(s): Urban Crossroads (11-13-2018)

NOT TO SCALE

Figure 4.14-13

PROJECT AVERAGE DAILY TRAFFIC – HORIZON YEAR WITH LIMONITE EXTENSION

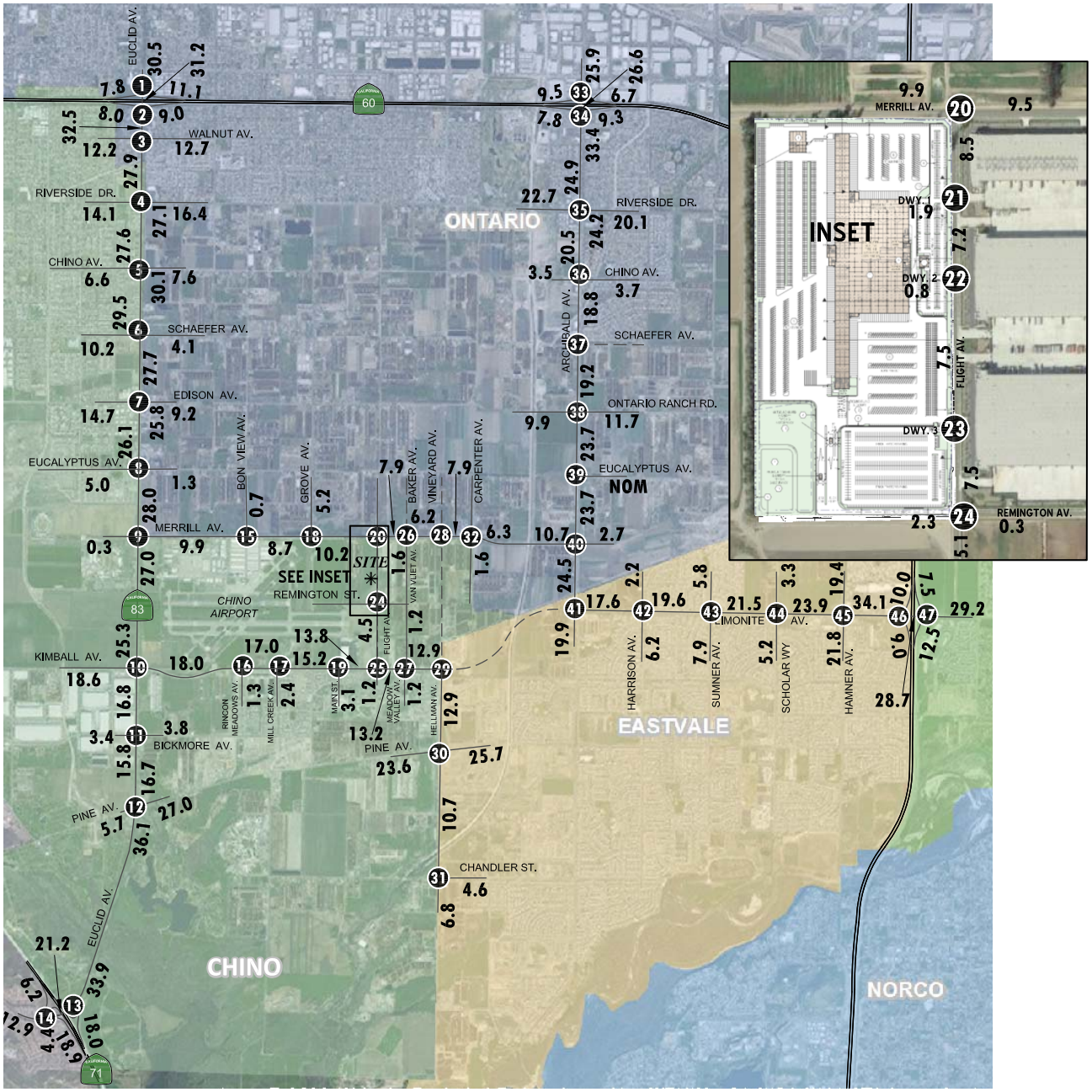


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-14

NOT TO SCALE

PROJECT PEAK HOUR TRAFFIC VOLUMES – HORIZON YEAR WITH LIMONITE EXTENSION



LEGEND:

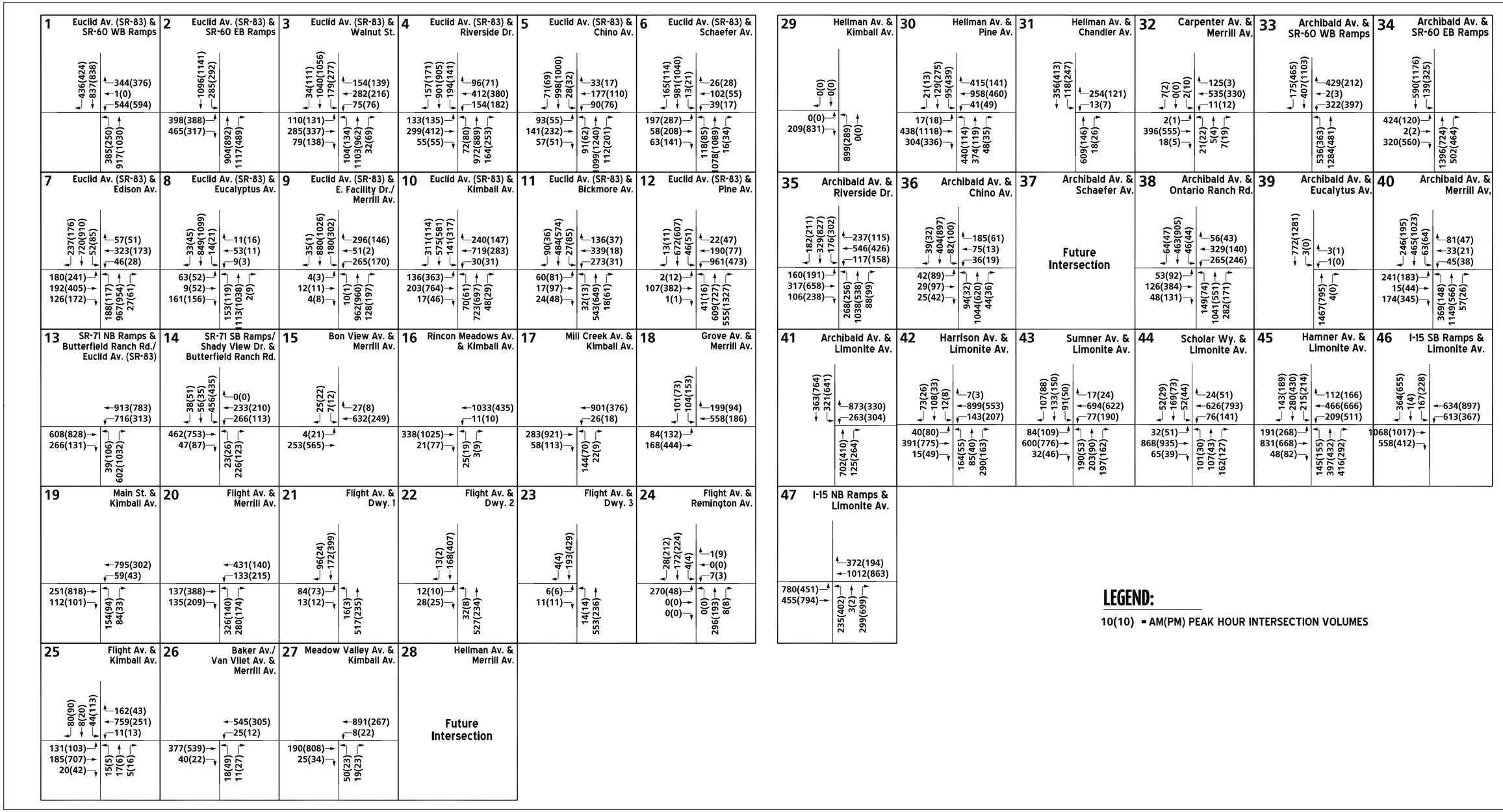
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-15

NOT TO SCALE

EXISTING PLUS PROJECT AVERAGE DAILY TRAFFIC

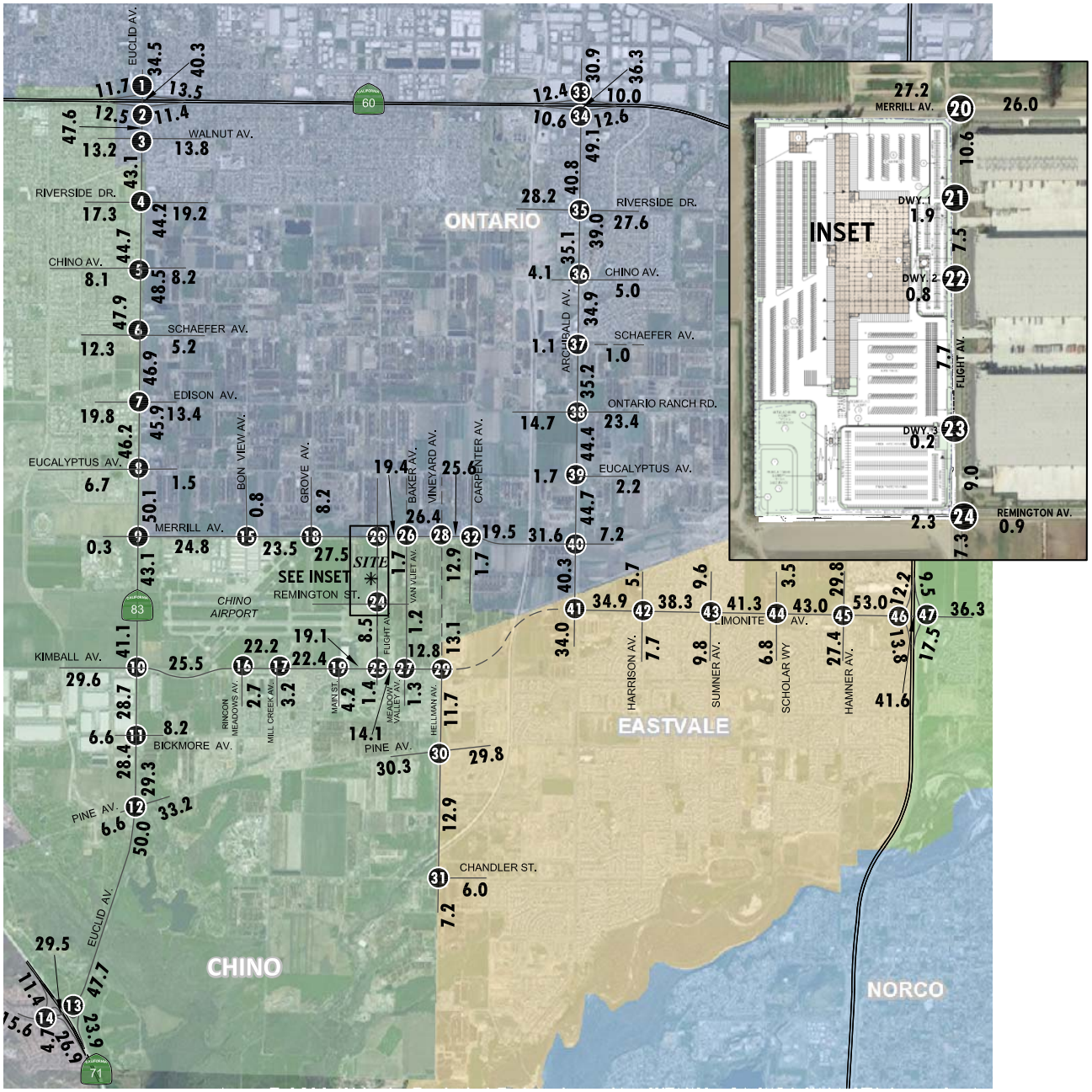


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-16

NOT TO SCALE

EXISTING PLUS PROJECT PEAK HOUR INTERSECTION VOLUMES



LEGEND:

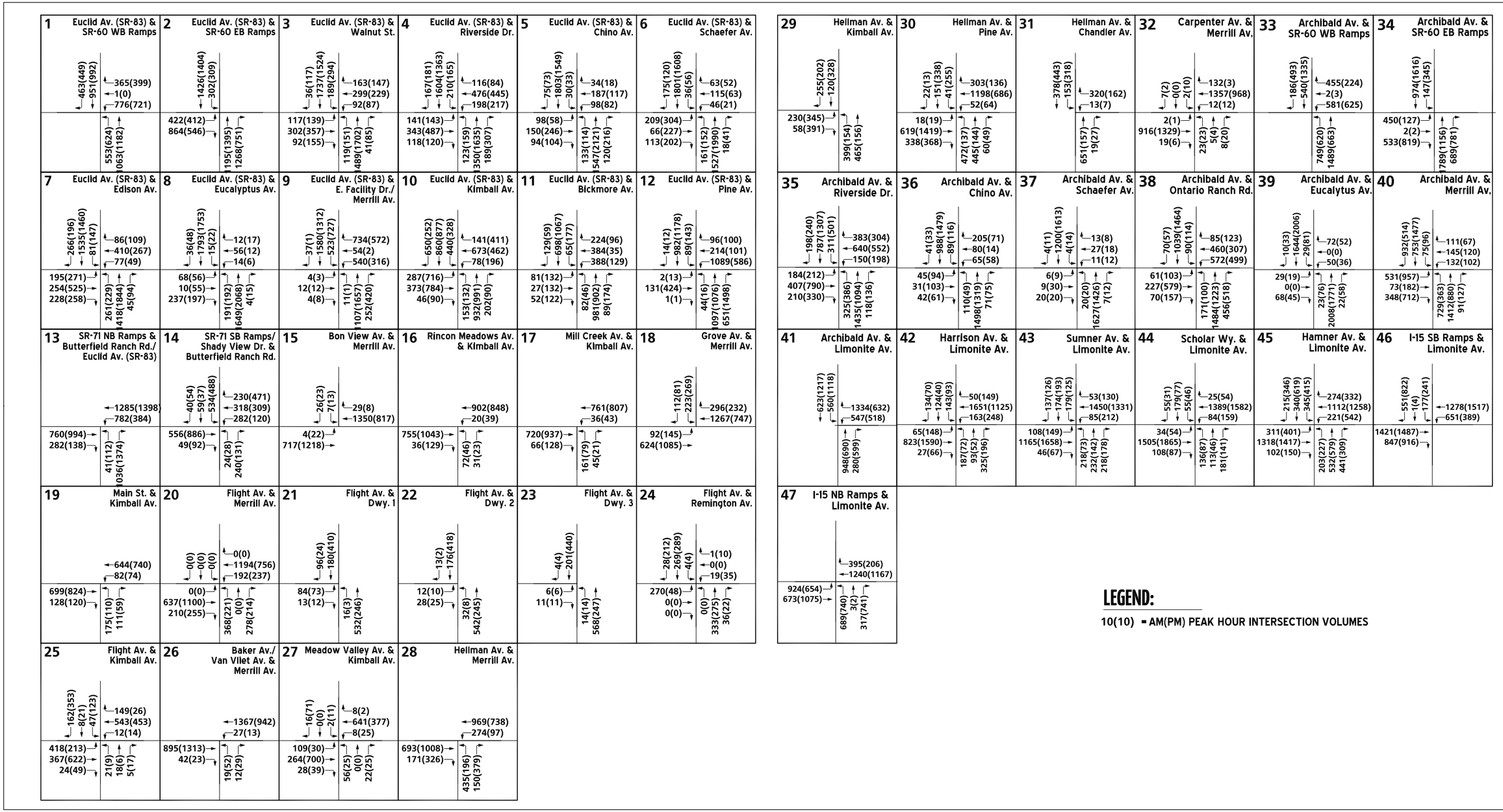
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-17

NOT TO SCALE

OPENING YEAR (2020) AVERAGE DAILY TRAFFIC

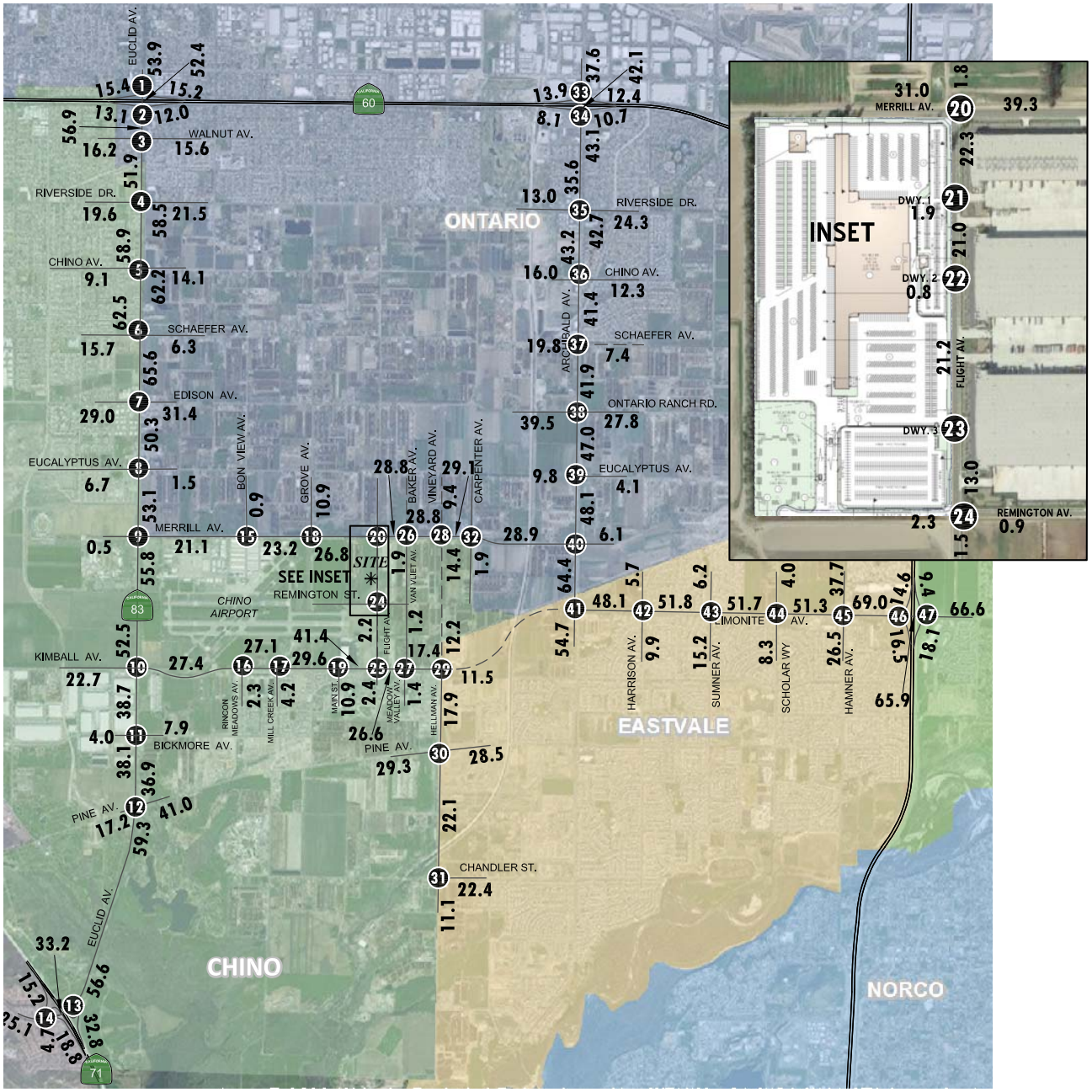


Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-18

NOT TO SCALE

OPENING YEAR (2020) PEAK HOUR INTERSECTION VOLUMES



LEGEND:

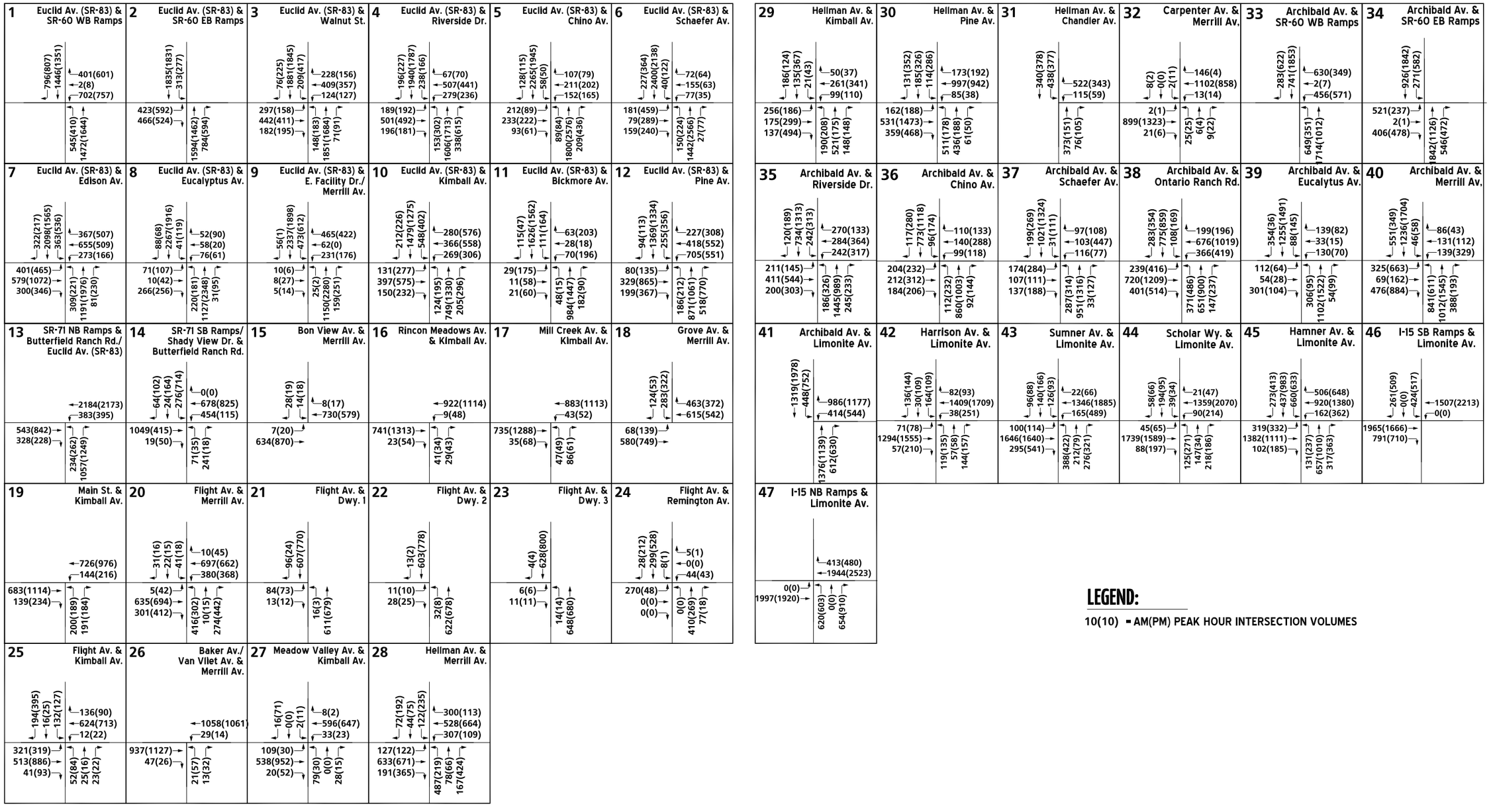
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source(s): Urban Crossroads (11-13-2018)

NOT TO SCALE

Figure 4.14-19

HORIZON (2040) AVERAGE DAILY TRAFFIC – WITHOUT LIMONITE AVENUE EXTENSION



LEGEND:

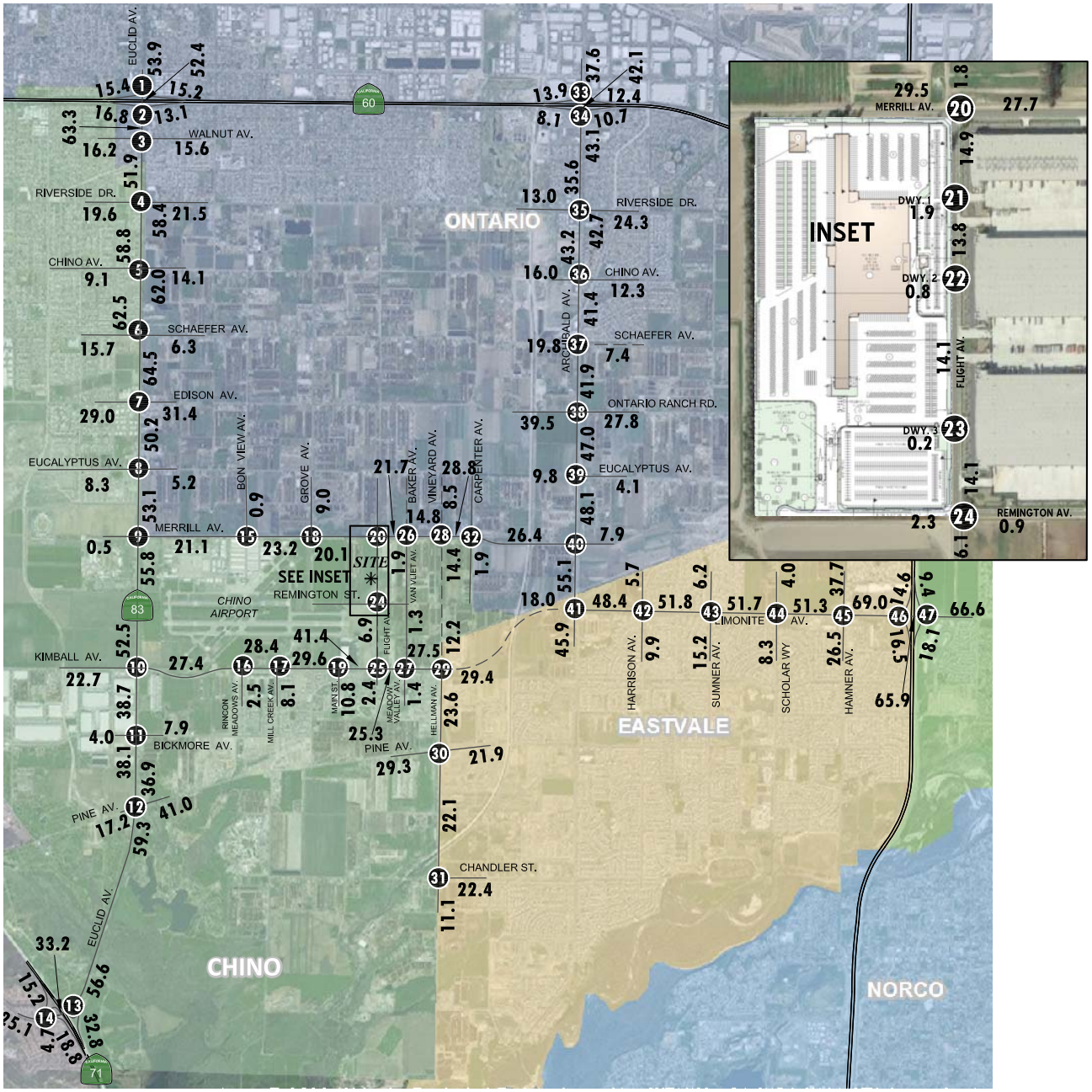
10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-20

NOT TO SCALE

HORIZON (2040) PEAK HOUR INTERSECTION VOLUMES – WITHOUT LIMONITE AVENUE EXTENSION



LEGEND:

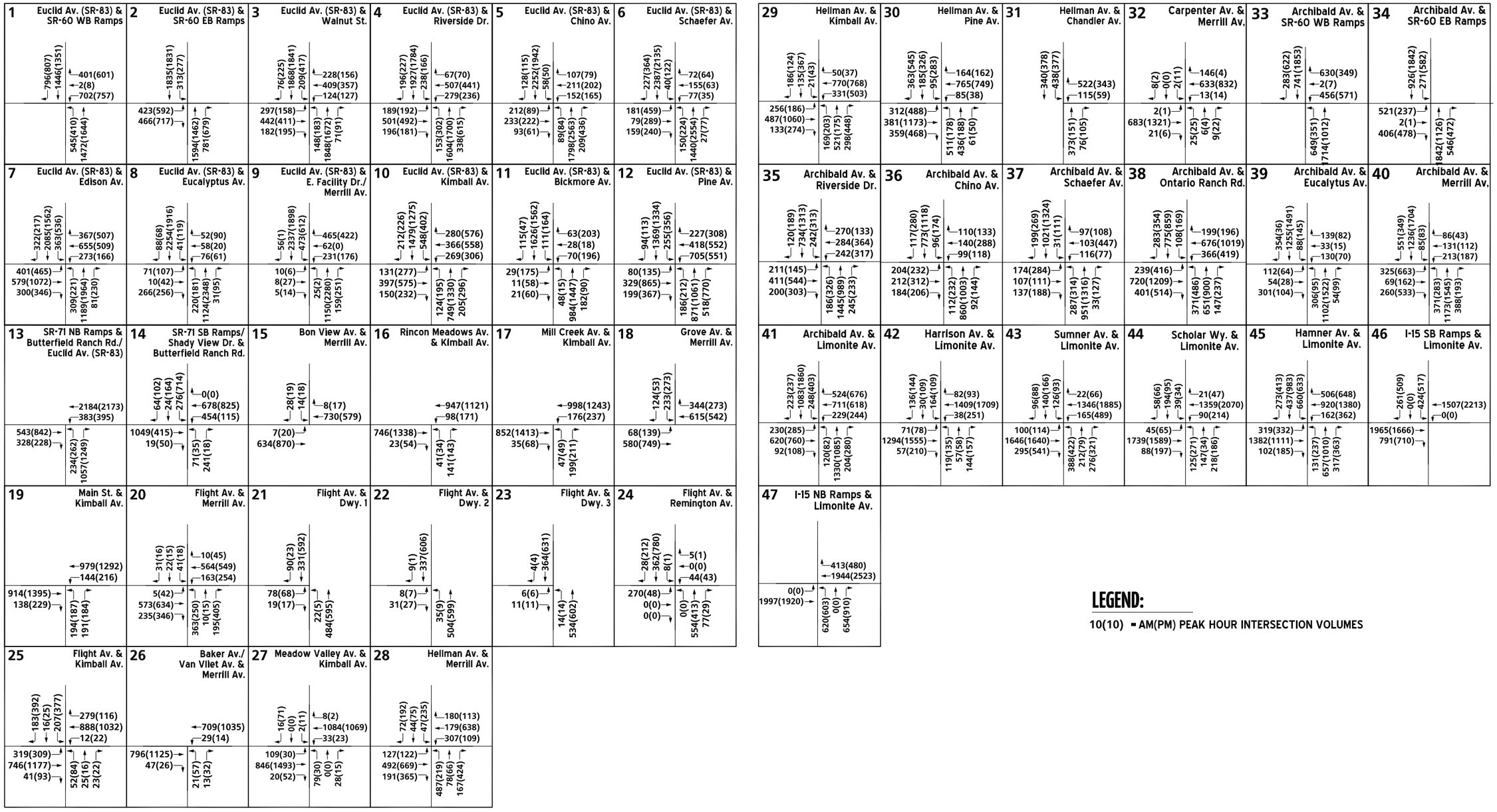
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source(s): Urban Crossroads (11-13-2018)

NOT TO SCALE

Figure 4.14-21

HORIZON (2040) AVERAGE DAILY TRAFFIC – WITH LIMONITE AVENUE EXTENSION



Source(s): Urban Crossroads (11-13-2018)

Figure 4.14-22

NOT TO SCALE

HORIZON YEAR (2040) PEAK HOUR INTERSECTION VOLUMES - WITH LIMONITE AVENUE EXTENSION

4.15 Utilities and Service Systems

This Subsection addresses the topics of water service and supply, wastewater collection and treatment, stormwater, drainage management, and solid waste collection and disposal. The information contained herein is based, in part, on information contained in the Project's water supply assessment report prepared by Charles Marr Consulting (CMC) for the City of Chino Public Works Department (CMC, 2018). The water supply assessment is provided as *Technical Appendix L* to this EIR. Other information sources used in this analysis include, but are not limited to, the *City of Chino 2015 Urban Water Management Plan (UWMP)* (Chino, 2016b) and readily available information from the California Department of Resources Recycling, and Recovery website. A complete list of references can be found in EIR Section 7.0, *References.*

4.15.1 Existing Conditions

A. *Water Service*

The Project site is located within the City of Chino's water service area. The City of Chino is a member agency of the Inland Empire Utilities Agency (IEUA), a wholesale water distributor. The City of Chino's service area is approximately 29.5 square miles; in 2015, the City provided a combined 13,433 acre-feet of water to 20,249 municipal connections. (Chino, 2016b, p. x, 3)

The Project site is supplied by the City of Chino and private water wells not owned by the City not owned/operated by the City of Chino. The existing land uses on the Project site (dairy farm and row crops) are calculated to demand 216,050 gallons of water per day. (CMC, 2018, p. 3-3)

B. *Wastewater Service*

Wastewater in the Project area is conveyed via City of Chino maintained sewer lines to an IEUA sewer line installed beneath Kimball Avenue which, ultimately, connects to the RP-5 wastewater treatment facility (operated by the IEUA). Under existing conditions, the RP-5 facility has a treatment capacity of approximately 16.3 million gallons of wastewater per day but only treats approximately 9 million gallons of wastewater per day (IEUA, 2018).

The Project site is not connected to the City's sewer conveyance network under existing conditions; wastewater generated on the Project site is treated and disposed on-site via septic systems.

C. *Stormwater Conveyance Facilities*

Under existing conditions, the only stormwater conveyance facility on the Project site is an agricultural wastewater pond located on the southwestern portion of the site. The agricultural wastewater pond captures and retains stormwater runoff from the on-site dairy.

In the vicinity of the Project site, an unpaved drainage ditch is located on the north side of Merrill Avenue, and existing storm drain line is located beneath Flight Avenue, and a man-made, above-ground channel that transitions to a below-ground storm drain is located south of the Merrill Avenue/Grove Avenue intersection (located approximately 1,300 feet west of the Project site).

D. Solid Waste Collection and Disposal

Solid waste collection and disposal services are provided to the Project area by the City of Chino through private contract with Waste Management, Inc. Solid waste collected in the City of Chino is disposed at the El Sobrante Landfill. Under existing conditions, the Project site generates minimal solid waste (associated with the existing on-site residences and commercial nursery operations).

The El Sobrante Landfill is located east of I-15 and Temescal Canyon Road and to the south of the City of Corona at 10919 Dawson Canyon Road. In July 2018, the El Sobrante Landfill received approximately 276,721 tons of solid waste (which correlates to approximately 11,069 tons per day). The El Sobrante Landfill is permitted to receive 16,054 tons of solid waste per day and is estimated to reach capacity, at the earliest time, in the year 2045. Future landfill expansion opportunities exist at this site. (CalRecycle, El Sobrante Landfill, 2018; RCDWR, 2018)

4.15.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws, regulations, and plans related to utilities and service systems.

A. Federal Plans, Policies, and Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2017a)

2. Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to SDWA require that EPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments, which can be approved to implement these rules for EPA, also encourage attainment of secondary standards (nuisance-

related). Under the Act, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids. (EPA, 2017b)

B. State Plans, Policies, and Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 *et seq*.), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and

practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site and vicinity are located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region.

2. California Water Code

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

Surface water quality is the responsibility of the applicable RWQCB, water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water.

3. California Toxics Rule (CTR)

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016)

4. Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMP Act) was proposed and adopted to ensure that water planning is conducted at the local level, as the State of California recognized that two water agencies in the same region could have very different impacts from a drought. The UWMP Act requires water agencies to

develop Urban Water Management Plans (UWMPs) over a 20-year planning horizon, and further required UWMPs to be updated every five years. UWMPs are exempt from compliance with CEQA. (DWR, 2016, pp. 1-2)

The UWMPs provide a framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands. This part of the California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning.

The UWMP Act has been modified over the years in response to the State's water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009. This was the Water Conservation Act of 2009, also known as SB X7-7. This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020. Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020. (DWR, 2016, pp. 1-2)

5. California Senate Bill 610

The California Water Code (Water Code) §§ 10910 through 10915 were amended by the enactment of SB 610 in 2002. SB 610 requires an assessment of whether available water supplies are sufficient to serve the demand generated by a proposed project, as well as the reasonably foreseeable cumulative demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to CEQA. (DWR, 2003) For the purposes of SB 610, "project" means any of the following:

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified in this subdivision.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project. (DWR, 2003)

6. Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act was established to ensure adequate water supplies are available for future uses. To promote the conservation and efficient use of water, the Act requires local agencies to adopt a water efficient landscape ordinance. The City of Chino's water efficient landscape ordinance is contained in Chapter 20.19 of the Chino Municipal Code.

7. Executive Order B-37-16

Signed on May 9, 2016, EO B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. (DWR, 2017)

8. Executive Order B-40-17

Signed on April 7, 2017, EO B-40-17 ended the drought state of emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne, where emergency drinking water projects will continue to help address diminished groundwater supplies. It maintains water reporting requirements and prohibitions on wasteful practices. The order was built on actions taken in Executive Order B-37-16, which remains in effect. In a related action, state agencies, including the Department of Water Resources (DWR), released a plan to continue making water conservation a way of life. (DWR, 2017)

9. California Solid Waste Integrated Waste Management Act (AB 939, 1989)

The Integrated Waste Management Act (IWMA) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (CIWMB) and local agencies in implementation, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal (it should be noted that the CIWMB no longer exists, and its duties have been assumed by CalRecycle). As part of the IWMA, the CIWMB was given a purpose to mandate the reduction of disposed waste. (CalRecycle, 2018a) The IWMA also required:

- The establishment of a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. (CalRecycle, 2018a)

- Each city, by July 1, 1991, to prepare, adopt and submit a SRRE to the county which includes the following components: waste characterization; source reduction; recycling; composting; solid waste facility capacity; education and public information; funding; special waste (asbestos, sewage sludge, etc.); and household hazardous waste. (CalRecycle, 2018a)
- Each county, by January 1, 1991, to prepare a SRRE for its unincorporated area, with the same components described above, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction which cannot be reduced or recycled for a 15-year period.
- Each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan (IWMP), which includes all of the elements described above. (CalRecycle, 2018a)
- Each city or county plan to include an implementation schedule which shows: diversion of 25 percent of all solid waste from landfill or transformation facilities by January 1, 1995 through source reduction, recycling, and composting activities; and, diversion of 50 percent of all solid waste by January 1, 2000 through source reduction, recycling, and composting activities. (CalRecycle, 2018a)
- The CIWMB to review the implementation of each SRRE at least once every two years. (CalRecycle, 2018a)
- The IWMA required the CIWMB, in conjunction with an inspection conducted by a Lead Enforcement Agency (LEA), to conduct at least one inspection per year of each solid waste facility in the state. (CalRecycle, 2018a)

Additionally, the IWMA established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities. (CalRecycle, 2018a)

10. Waste Reuse and Recycling Act (AB 1327)

The Waste Reuse and Recycling Act (WRRA) required the CIWMB to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The WRRA also required local agencies to adopt a local ordinance by September 1, 1993 or allow the model ordinance to take effect. The WRRA requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. (CalRecycle, 2018b)

11. Mandatory Commercial Recycling Program (AB 341)

Assembly Bill (AB) 341 (Chapter 476, Statutes of 2011 [Chesbro, AB 341]) directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. AB-341 was designed to help meet California's recycling goal of 75% by the year 2020. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards

or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also required to form a recycling program. (CalRecycle, 2017)

12. 2016 California Green Building Standards Code (CALGreen, Part 11 of Title 24, California Code of Regulations)

The most recent edition of CALGreen became effective January 1, 2017, and is applicable to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California (including residential structures and elementary schools). CALGreen § 5.408.3 requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on-site until the storage site is developed.

C. Local Plans, Policies, and Regulations

1. City of Chino Urban Water Management Plan

The *City of Chino 2015 UWMP*¸ which acts as the urban water management plan (UWMP) for the City, is herein incorporated by reference and is available for public review at the City of Chino Public Works Department located at 13220 Central Avenue, Chino, CA 91710. The Project's Water Supply Assessment (WSA, *Technical Appendix L*) is based, in part, on the *City of Chino 2015 UWMP*. The UWMP includes a water system analysis, identifies improvements to correct existing deficiencies and serve projected future growth, and presents the estimated costs and phasing of the recommended improvements. As concluded in the UWMP, the City anticipates that it will be able to meet projected demand for water within its service boundaries until at least the year 2040 in all types of climate situations, including normal, dry, and multiple consecutive dry weather years (Chino, 2016b, Tables 7-2 through 7-4).

A Water Shortage Contingency Plan is included in the UWMP, which would be implemented by the City in cases of future water deficiencies caused by limitations on supply or the City's delivery system. At the time of long- or short-term drought conditions, or other emergencies, the City would follow regional guidance from the Metropolitan Water District of Southern California (MWD), local guidance from the Inland Empire Utilities Agency (IEUA), and implement its own contingency plan, including considerations for mandatory prohibition, penalties, and consumption reduction methods. Compliance with mandatory water use reductions would ensure that the City has the ability to meet present and projected demand within its service area during dry years. (Chino, 2016b, pp. 60-69)

2. City of Chino Master Drainage Plan of Drainage

The Project site is located within the boundary of the Storm Drain Master Plan for Subarea 2 of the Chino Agricultural Preserve Area (hereafter "Storm Drain Master Plan"), which corresponds to the boundaries of The Preserve Specific Plan area. The Storm Drain Master Plan was prepared on behalf of the City of Chino to identify master-planned drainage and flood control facilities that are needed to safely convey the peak runoff from a 100-year storm through The Preserve Specific Plan area upon full buildout. The Project site spans the Storm Drain Master Plan's Drainage Areas D and J (the western portion of the site is part of Drainage Area J and the eastern portion of the site is part of Drainage Area D). According to the Storm Drain Master Plan,

stormwater runoff flows from both Drainage Areas D and J are planned to be conveyed to a basin south of Kimball Avenue (hereafter "Kimball Avenue Basin"). The Storm Drain Master Plan provides for an underground storm drain pipe beneath Kimball Avenue (existing) to convey flows to the Kimball Avenue Basin from Drainage Area D; the Storm Drain Master Plan provides for an underground culvert beneath the Chino Airport runways (existing) and above-ground unpaved drainage course (existing) to convey flows to the Kimball Avenue from Drainage Area J. From the Kimball Avenue Basin, the Storm Drain Master Plan provides to runoff to be conveyed to the Prado Reservoir via a system of underground pipes, manmade drainage channels, and natural drainage courses.

4.15.3 Basis for Determining Significance

The proposed Project would result in a significant impact associated with utilities and service systems if the Project or any Project-related component would:

a. *Exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board;*
b. *Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;*
c. *Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;*
d. *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;*
e. *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;*
f. *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or*
g. *Comply with federal, State, and local statues and regulations related to solid waste.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017) and address the typical, adverse effects that a development project could have on public utilities and service systems. The CEQA Guidelines revisions of December 2018 were taken into consideration in the substantive evaluation of each threshold.

4.15.4 Impact Analysis

Threshold a:	***Would the Project exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board?***

Wastewater treatment services would be provided to the Project site by IEUA. IEUA is required to operate all of its treatment facilities in accordance with the waste treatment and discharge standards and requirements set forth by the Santa Ana Regional Water Quality Control Board (RWQCB). The Project would not install or

utilize septic systems or alternative wastewater treatment systems; therefore, the Project would have no potential to exceed applicable wastewater treatment requirements established by the RWQCB. Accordingly, impacts would be less than significant.

Threshold b:	***Would the Project require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

The Project would construct an on-site network of water and sewer pipes that would connect to existing water and sewer lines that abut the Project site. No existing lines would be relocated or expanded. The installation of the water and sewer line infrastructure proposed by the Project Applicant would result in physical environmental impacts; however, these impacts have already been included in the analyses of construction-related effects presented throughout this EIR. In instances where the Project's construction phase would result in specific, significant impacts (e.g., air quality, biological resources), mitigation measures are provided in the applicable subsection of this EIR to reduce the Project's effects to less-than-significant levels (or, if it is not possible to reduce the Project's impacts to less-than-significant levels, mitigation is provided to minimize impacts to the maximum level feasible). The construction of water and sewer lines necessary to serve the proposed Project would not result in any significant physical effects on the environment that are not already identified and disclosed elsewhere in this this EIR. There are no components of the Project's installation of water of sewer infrastructure facilities that would result in impacts not already disclosed in this EIR and, accordingly, additional mitigation measures beyond those identified throughout this EIR would not be required.

Refer to the response to Threshold "e" for an analysis of the Project's potential effects to regional wastewater treatment facilities.

Threshold c:	***Would the Project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

The Project would involve the construction of stormwater drainage system on-site, including storm drain pipes, catch basins, and water quality/detention basins. The Project also would require the construction of an off-site storm drain that would connect the Project site to the existing culvert and storm drain pipe located approximately 1,300 feet west of the Project site. The construction of stormwater drainage facilities proposed by the Project would result in physical impacts to the surface and subsurface of the Project site, as well as physical impacts within the off-site linear storm drain easement. These impacts have already been included in the analyses of construction-related effects presented throughout this EIR. In instances where the Project's construction phase would result in specific, significant impacts (e.g., air quality, biological resources), mitigation measures are provided in the applicable subsection of this EIR to reduce the Project's effects to less-than-significant levels (or, if it is not possible to reduce the Project's impacts to less-than-significant levels, mitigation is provided to minimize impacts to the maximum level feasible). The construction of stormwater drainage facilities necessary to serve the proposed Project would not result in any significant physical effects on the environment that are not already identified and disclosed elsewhere in this this EIR.

There are no components of the Project's installation of stormwater infrastructure facilities that would result in impacts not already disclosed in this EIR and, accordingly, additional mitigation measures beyond those identified throughout this EIR would not be required.

Threshold d: ***Would the Project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?***

A water supply assessment was prepared to assess the Project's effect on the City's ability to provide adequate water service to customers within the City's service area during normal, dry, and multiple dry years. The Water Supply Assessment, which is provided as *Technical Appendix L* to this EIR, was prepared in accordance with SB 610 and SB 221. The Project is calculated to demand 113,426 gallons of water per day (115 acre-feet per year), including 78,936 gallons per day for indoor use and 34,490 gallons per day for outdoor use (i.e., landscape irrigation), which is less than the 216,050 gallons of water that are calculated to be used on the Project site on a daily basis under existing conditions (CMC, 2018, p. 3-3).

Because a portion of the water supplied to the Project site under existing conditions is provided by private agricultural wells, the City considers the Project's water demand to represent a "new" demand placed on the City's water utility. However, as part of development of the Project, the subject property's agricultural groundwater rights would be granted to the City. The City would receive groundwater rights of up to 2.0 acre-feet per year for each acre of the Project site that is being converted from agricultural to urban land use (CMC, 2018, p. 3-3). The Project would convert approximately 75 acres from agriculture to non-agriculture use which would result in new water rights totaling up to 150 acre-feet per year being granted to the City, which would offset the Project's water demand and further contribute to the City's expected surplus of water supply (as identified in the *2015 UWMP*) (CMC, 2018, pp. 4-4, 5-10, 5-11). Notwithstanding, based on information contained within the City's *2015 UWMP* pertaining to the City's future water supplies and demands and calculations performed by CMC, the Project's Water Supply Assessment concluded that the City has adequate existing water entitlements and resources to serve the Project under normal, single-dry year, and multiple-dry year scenarios. (CMC, 2018, p. 6-2) Accordingly, the Project would have no potential to result in the need for new or expanded water entitlements or treatment capacity and impacts would be less than significant.

Threshold e: ***Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

The Project is estimated to generate approximately 75,200 gallons of wastewater per day (using the City's wastewater generation rate of 1,000 gallons per day per acre for light industrial land uses). Wastewater flows generated by the Project would be conveyed via the City's sewer line network to the RP-5 IEUA treatment facility. As of 2018, RP-5 has an excess treatment capacity of approximately 9 million gallons of wastewater per day (IEUA, 2018). Implementation of the proposed Project would utilize approximately 0.8% of the available excess treatment capacity at RP-5. Accordingly, RP-5 has sufficient capacity to treat wastewater generated by the Project in addition to existing commitments. The Project would not create the need for any new or expanded wastewater facility (such as conveyance lines, treatment facilities, or lift stations). Because

there is adequate capacity at existing treatment facilities to serve the Project's projected sewer demand, impacts would be less than significant and mitigation is not required.

Threshold f:	***Would the Project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?***

Construction and operation of the proposed Project would result in the generation of solid waste requiring disposal at a landfill. Solid waste collected in the City of Chino is disposed at the El Sobrante Landfill.

❑ Construction Impact Analysis

During construction of the proposed Project, solid waste requiring landfill disposal would be required in the form of demolition debris and remnants of unused construction materials.

Approximately 10,040 s.f. of on-site structures would be demolished during Project construction. Using a residential demolition waste generation factor of 50 pounds per square foot (EPA, 2009), demolition of the existing structures on-site would generate approximately 2,175 tons of debris requiring disposal ([10,040 s.f. x 50 lbs/s.f.] ÷ 2,000 lbs/ton = 251 tons). California Assembly Bill 939 (AB 939) requires that a minimum of 50% of all solid waste be diverted from landfills (by recycling, reusing, and other waste reduction strategies); therefore, the Project is estimated to generate approximately 125.5 tons of demolition waste. Additional demolition debris (i.e., non-structural remnants of the former dairy farms) would also require disposal; however, the volume of waste is not anticipated to be substantial.

Waste also would be generated by the construction process, primarily consisting of discarded materials and packaging. Based on a proposed building area of 502,814 s.f. and a construction waste generation factor of 4.34 pounds per square foot (EPA, 2009), approximately 1,091 tons of waste would be generated over the course of the Project's construction phase ([502,814 sq. ft. × 4.34 lbs/sq. ft] ÷ 2,000 lbs/ton = 1,091 tons). AB 939 requires that a minimum of 50% of all solid waste be diverted from landfills (by recycling, reusing, and other waste reduction strategies) consistent with the State's solid waste reduction goals; therefore, the Project is estimated to generate approximately 545 tons of construction waste.

The Project's combined demolition and construction activities would generate approximately 670.5 tons of solid waste requiring disposal at a landfill. The Project's building construction would occur over a period of approximately 755 working days, which corresponds to approximately 0.9 tons of construction waste being generated per day of construction activity.

Non-recyclable demolition debris and construction waste generated by the Project would be disposed the El Sobrante Landfill. The Project's short-term generation of this volume of construction waste is not in excess of State or local disposal standards, or in excess of the local infrastructure capacity to handle the waste disposal. As described in Subsection 4.15.1D, the El Sobrante Landfill receives well below its maximum permitted daily disposal volume; thus, demolition and construction waste generated by the Project is not anticipated to cause the landfill to exceed its maximum permitted daily disposal volume. Furthermore, the El Sobrante Landfill is not expected to reach its total maximum permitted disposal capacity during the Project's construction period.

The El Sobrante Landfill would have sufficient daily capacity to accept solid waste generated by the Project's construction phase; therefore, impacts to landfill capacity associated with the Project's near-term construction activities would be less than significant.

❑ Operational Impact Analysis

Based on a daily waste generation factor of 1.42 pounds of waste per 100 square feet of industrial/warehouse building area obtained from CalRecycle (CalRecycle, 2018c), long-term operation of the project would generate approximately 3.6 tons of solid waste per day ([502,814 sq. ft. × 1.42 lbs/ 100 sq. ft] ÷ 2,000 lbs/ton = 3.6 tons). A minimum of 50% of all solid waste would be required to be recycled pursuant to AB 939, consistent with the State's solid waste reduction goals; therefore, the Project would generate approximately 1.8 tons per day of solid waste requiring disposal at a landfill.

Non-recyclable waste generated by the Project would be disposed the El Sobrante Landfill. The Project's long-term generation of this volume of solid waste is not in excess of State or local disposal standards, or in excess of the local infrastructure capacity to handle the waste disposal. As described in Subsection 4.15.1D, the El Sobrante Landfill receives well below its maximum permitted daily disposal volume; thus, waste generated by the Project's operation is not anticipated to cause the landfill to exceed its maximum permitted daily disposal volume. Because the Project would generate a relatively small amount of solid waste per day as compared to the permitted daily capacities at receiving landfills, impacts to regional landfill facilities during the Project's long-term operational activities would be less than significant.

Threshold g:	***Would the Project comply with federal, state, and local statues and regulations related to solid waste?***

The California Integrated Waste Management Act (Assembly Bill (AB) 939), signed into law in 1989, established an integrated waste management system that focused on source reduction, recycling, composting, and land disposal of waste. In addition, the bill established a 50% waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted. Per the requirements of the Integrated Waste Management Act, the San Bernardino County Board of Supervisors adopted the County of San Bernardino Countywide Integrated Waste Management Plan (San Bernardino County, 2012), which outlines the goals, policies, and programs the County and its cities implement to create an integrated and cost effective waste management system that complies with the provisions of AB 939 and its diversion mandates.

In order to assist the City of Chino and the County of San Bernardino in achieving the mandated goals of the Integrated Waste Management Act, and pursuant to City of Chino Municipal Code § 20.10.060, separate bins would be provided on-site to allow tenants to separate recyclable materials from refuse. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project is required to provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. The implementation of these mandatory requirements would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension

of the life of affected disposal sites. The Project would be required to comply with all applicable solid waste statutes and regulations; as such, impacts related to solid waste statutes and regulations would be less than significant.

4.15.5 Cumulative Impact Analysis

The Project would require water, wastewater, and stormwater drainage services and infrastructure, as well as solid waste disposal for building operation. Development of public utility infrastructure is part of an extensive planning process involving utility providers and jurisdictions with discretionary review authority. The coordination process associated with the preparation of infrastructure plans is intended to ensure that adequate public utility services and resources are available to serve both individual development projects and cumulative growth in the region. Each individual development project is subject to review for utility capacity to avoid unanticipated interruptions in service or inadequate supplies. Coordination with the utility providers would allow for the provision of utility services to development projects without interrupting or degrading services to existing customers. The Project and other development projects are subject to connection and service fees to offset increased demand and assist in facility expansion and service improvements (at the time of need). Because the comprehensive utility and service planning and coordination activities described above would ensure that new development projects do not disrupt or degrade the provision of utility services, cumulatively considerable impacts to utilities and service systems would not occur.

4.15.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not exceed wastewater treatment requirements of the Santa Ana RWQCB. IEUA would provide wastewater treatment and collection services to the Project, and IEUA is required to operate all of its treatment facilities in accordance with applicable waste treatment and discharge standards and requirements set forth by the RWQCB. The proposed Project would not install or use septic systems or alternative wastewater treatment systems.

Threshold b: Less-than-Significant Impact. The environmental effects associated with installing the Project's water and wastewater infrastructure is evaluated throughout this EIR and no impacts specific to the utilities and service systems issue area have been identified.

Threshold c: Less-than-Significant Impact. Stormwater would be collected on the Project site by an on-site drainage system. The environmental effects associated with installing the Project's water and wastewater infrastructure is evaluated throughout this EIR and no impacts specific to the utilities and service systems issue area have been identified.

Threshold d: Less-than-Significant Impact. The City of Chino is expected to have sufficient water supplies to service the Project. The Project would not exceed the City's available supply of water during normal years, single-dry years, or multiple-dry years.

Threshold e: Less-than-Significant Impact. The IEUA would provide wastewater treatment services to the Project site via RP-5. This facility has adequate capacity to service the Project and no new or expanded facilities would be needed.

Threshold f: Less-than-Significant Impact. There is adequate capacity available at the El Sobrante Landfill to accept the Project's solid waste during both construction and long-term operation. The proposed Project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure to handle the waste.

Threshold g: Less-than-Significant Impact. The Project would comply with all applicable federal, State, and local statutes and regulations related to related to the management and reduction of solid waste and pertaining to waste disposal, reduction, and recycling.

4.15.7 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

5.0 OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines § 15126(b)). As described in detail in Section 4.0, *Environmental Analysis*, of this EIR, the proposed Project is anticipated to result in impacts to the environment that cannot be reduced to below a level of significance after implementation of relevant standard conditions of approval, compliance with applicable regulations, and application of feasible mitigation measures. The significant impacts that cannot be mitigated to a level below significant consist of the following:

- Agriculture and Forestry Resources: The Project would convert Farmland with substantial agricultural production value to non-agricultural use. The loss of the Farmland on the Project site would be a significant direct and cumulatively-considerable impact in consideration of the past, ongoing, and projected future loss of farmland in the CBDA.
- Air Quality: After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, long-term operational-related NO_X emissions would still exceed the applicable SCAQMD regional threshold for daily emissions. The Project's NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations, which do not meet regional attainment status).
- Land Use and Planning: The Project's conflict with the existing City of Chino General Plan Land Use Map and The Preserve Specific Plan Land Use Plan would indirectly result in significant environmental impacts, including impacts related air pollutant emissions and traffic congestion.
- Transportation/Traffic: The addition of Project-related traffic would contribute to LOS deficiencies at numerous Study Area intersections and *CMP* facilities during Existing plus Project, Opening Year, and Horizon Year (2040) traffic conditions.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines § 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent an irreversible change to the environment. However, development of the Project site as proposed would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels). Additionally, the Project is required by law to comply with the California Building Standards Code (CALGreen), which will minimize the Project's demand for energy, including energy produced from non-renewable sources. A more detailed discussion of energy consumption is provided below in Subsection 5.4.

Implementation of the Project would commit the Project site to an industrial use as a parcel sorting/distribution center for future generations. The land use proposed by the Project is compatible with the existing and planned future uses that surround the Project site. Although the Project would result in unavoidable physical impacts to agricultural resources, air quality, and transportation/traffic effects, these effects are significant from a regional perspective, as opposed to a local/localized perspective, and the Project and its environmental effects would not compel or commit surrounding properties to land uses other than those that are existing today or those that are planned by the Chino General Plan, the Ontario Plan, and The Preserve Specific Plan. For this reason, the Project would not result in a significant, irreversible change to nearby, off-site properties.

EIR Subsection 4.8, *Hazards and Hazardous Materials*, provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, compliance with federal, State, and local regulations related to hazardous materials would be required of all contractors working on the property during the Project's construction and of the parcel delivery company that occupies the Project site. As such, construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

As discussed under Subsection 5.4.2, the Project would not result in a wasteful, inefficient, or unnecessary consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

5.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines § 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers

to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population of residents or employees.

According to regional population projections included in SCAG's *2016 RTP/SCS*, the City of Chino's population is projected to increase 1.5% annually, between 2012 and 2040. Over this same time period, employment in the City is expected to increase 0.62% annually. (Urban Crossroads, 2018e, p. 139) Economic growth would likely take place as a result of the proposed Project's operation as a parcel sorting/distribution center. The Project's employees (short-term construction and long-term operational) would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services demands is expected to be marginal, accommodated by existing goods and service providers, and highly unlikely to result in any new physical impacts to the environment based on the amount of existing and planned future commercial and retail services available in areas near the Project site. In addition, the Project would create jobs that a majority of which would likely be filled by residents of the housing units either already built or planned for development within the City of Chino and nearby areas. Accordingly, because it is anticipated that most of the Project's future employees would already be living in the area, the Project's on-site employment generation would not induce substantial growth in the area.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as SCAG. Significant growth impacts also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

The area surrounding the Project site is in the process of transitioning from agricultural to non-agricultural uses as planned by the Chino General Plan and The Preserve Specific Plan, with several active residential construction projects to the southwest of the Project site (south of Kimball Avenue) and approved, partially constructed, industrial development to the east and southeast of the Project site. Development of the Project site may place short-term development pressure on the undeveloped parcels to the north and southwest of the Project site; however, because these areas are ultimately planned for development by the Ontario Plan and The Preserve Specific Plan, respectively, the growth that could occur in the Project area has been planned for to ensure that adequate infrastructure and public services are available. Further, the Project will not require the construction of extensive new oversized public facilities which, if such public facilities were constructed, could induce growth.

Based on the foregoing analysis, the Project would not result in substantial, adverse growth-inducing impacts.

5.4 ENERGY CONSERVATION

This Subsection presents information from a technical report prepared by Urban Crossroads, Inc. titled, "Chino Parcel Delivery Energy Analysis, City of Chino," dated May 11, 2018, and appended to this EIR as *Technical Appendix L*. This analysis satisfies CEQA the criteria listed in Appendix F to the CEQA Guidelines as of the publication date of the NOP for this EIR (September 23, 2017), and also the CEQA Guidelines revisions of December 2018 wherein the topic of energy was moved from CEQA Guidelines Appendix F to Appendix G.

Federal and State agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation (DOT), the United States Department of Energy (DOE), and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the State level, the Public Utilities Commission (PUC) and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and State energy-related laws and plans are summarized below. Project consistency with applicable federal and State regulations is presented below each regulation to determine if the Project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

5.4.1 APPLICABLE FEDERAL AND STATE POLICIES AND REQUIREMENTS

A. Federal Regulations

1. Intermodal Surface Transportation Efficiency

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. (Urban Crossroads, 2018f, p. 14)

Project Consistency: Access to/from the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site. (Urban Crossroads, 2018f, p. 14)

2. Transportation Equity Act for the 21st Century (TEA-21)

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

improve operations and management of transportation systems and vehicle safety. (Urban Crossroads, 2018f, p. 14)

Project Consistency: The Project site is located to proximity to major transportation corridors with access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through co-location of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21. (Urban Crossroads, 2018f, p. 14)

B. California Regulations

1. Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301a). The CEC prepares these assessments every two years with updates in alternate years, as part of the Integrated Energy Policy Report. (Urban Crossroads, 2018f, pp. 15-16)

The *Final 2016 Integrated Energy Policy Report Update (Final 2016 IEPR Update)* was released on February 28, 2017. The report examines how the state is transforming its electricity sector and identifies other improvements that are still needed to achieve the state's energy and climate policy goals. The report covers a broad range of topics, including the environmental performance of the electricity generation system, landscape-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, updates on the Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios, and the California Energy Demand Forecast. (CEC, 2016)

Project Consistency: The *Final 2016 IEPR Update* is a State Policy report. An individual project, such as the proposed Project, has no ability to comply with or conflict with the report.

2. State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. (Urban Crossroads, 2018f, p. 16)

Project Consistency: The Project would comply with the energy efficiency building codes, appliance standards, and utility energy efficiency programs applicable to the Project. The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access and may reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through the introduction of a parcel sorting/distribution center on a site surrounded by existing and planned industrial and airport uses. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan. (Urban Crossroads, 2018f, p. 16)

3. California Code 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. California's building efficiency standards are updated on an approximately three-year cycle. The 2016 Standards for building construction, which went into effect on January 1, 2017 improved upon the former 2013 Standards for residential and nonresidential buildings. (CEC, 2015)

Project Consistency: The proposed Project is required by State law to be designed, constructed, and operated to meet or exceed Title 24 Energy Efficiency Standards. On this basis, the proposed Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of Title 24 Energy Efficiency Standards. (Urban Crossroads, 2018f, p. 16)

4. Assembly Bill 1493, Pavley

On September 24, 2009, the California Environmental Protection Agency (CalEPA) Air Resources Board (ARB) adopted amendments to the "Pavley" regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. ARB's September amendments will cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments will also prepare California to harmonize its rules with the federal rules for passenger vehicles. (CARB, 2017a)

Project Consistency: AB 1493 requires registry in consultation with the State ARB, to adopt procedures and protocols for the reporting and certification of reductions in greenhouse gas emissions from mobile sources for use by the State ARB in granting emission reduction standards. (CARB, 2017a). An individual project, such as the proposed Project does not have the ability to comply with or conflict with AB 1493.

5. California Renewable Portfolio Standards (SB 1078)

California Renewable Portfolio Standards (SB 1078) requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020.

Project Consistency: Energy directly or indirectly supplied to the proposed Project by electric corporations is required by law to comply with SB 1078.

5.4.2 Energy Consumption Analysis

In compliance with CEQA Guidelines Appendix F in effect as of the publication date of the NOP for this EIR (September 23, 2017), and also in compliance with the CEQA Guidelines revisions of December 2018 wherein the topic of energy was moved from CEQA Guidelines Appendix F to Appendix G., this Subsection provides an analysis of the proposed Project's anticipated energy use to determine if the Project would result in an adverse environmental effect associated with the wasteful, inefficient or unnecessary consumption of energy, or result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

A. Methodology

Information from the CalEEMod (v. 2016.3.2) outputs for the Project's Air Quality Impact Analysis (*Technical Appendix C1*) was utilized in the Project's Energy Analysis (*Technical Appendix L*) and is summarized below. The Energy Analysis presents the calculated energy demands for the Project, including energy required for construction, transportation, and building operation. These outputs are referenced in Appendix 3.1 of the Project's Energy Analysis (*Technical Appendix L*). (Urban Crossroads, 2018f, p. 18)

B. Project Construction Energy Use

1. Construction Equipment Electricity Usage

Based on national construction figures, the typical electricity cost to construct 1,000 s.f. of building area is $2.32 per month. The Project would construct slightly over 500,000 s.f. of building area over a period of approximately 27 months; therefore, the Project's total construction electricity cost is estimated to be $31,496.27. Southern California Edison's (SCE) general service rate schedule for industrial land uses is $.08 per kilowatt hour (kWh) of electricity. Accordingly, over the Project's construction phase, the Project would use approximately 393,703 kWh of electricity ($31,496.27 ÷ $0.08. per kWh = 393,703 kW). (Urban Crossroads, 2018f, pp. 17-18)

2. Construction Equipment Fuel Use

Fuel consumed by construction equipment would be the primary energy resource expended over the course of the Project's construction phase. The aggregate fuel consumption rate for construction equipment is estimated at 18.5 hp-hr-gal., using the California Air Resources Board (CARB) 2013 Emissions Factors Tables and consumption rate factors presented in the Moyer guidelines. Project construction equipment would consume an estimated 154,618 gallons of diesel fuel; for analysis purposes all Project construction equipment was assumed to be diesel-powered. Refer to Table 4-3 of *Technical Appendix L* for a detailed breakdown of the Project's estimated construction equipment fuel consumption. (Urban Crossroads, 2018f, p. 18)

3. Construction Worker Fuel Use

Urban Crossroads, Inc. estimated that construction worker trips to and from the Project site would travel approximately 1,109,997 miles over the Project's 27-month construction phase. According to the Emissions FACtor model (EMFAC), light duty automobiles ranging from model year 1974 to model year 2018 are estimated to have a fuel efficiency of 28.57 miles per gallon (MPG). Urban Crossroads, Inc. calculated that 38,852 gallons of gasoline would be consumed by construction workers commuting to and from the Project site. Refer to Table 4-4 of *Technical Appendix L*, for a detailed summary of the Project's estimated construction worker fuel consumption. (Urban Crossroads, 2018f, p. 20)

4. Construction Vendor/Hauling Fuel Use

The Project's construction vendor trips were calculated to travel 289,947 miles to and from the Project site over the Project's 27-month construction phase. Urban Crossroads, Inc., applied a reasonable assumption, based upon its review of various studies and its experience in preparing technical reports for numerous projects throughout California, that 50% of all vendor trips would be from medium-heavy duty trucks (MHD) and the remaining 50% of vendor trips would be from heavy-heavy duty trucks (HHD), while 100% of all hauling trips would be from HHD. According to EMFAC, the aggregated fuel economy of MHD trucks ranging from model year 1974 to model year 2018 are estimated to have a fuel efficiency of 8.5 mpg and the aggregated fuel economy for HHD trucks is estimated at 5.85 mpg. Based on these numbers, construction hauling and vendor trips to and from the Project site are calculated to consume approximately 35,664 gallons of fuel. Refer to Tables 4-5 and 4-6 of *Technical Appendix L* for detailed summaries of the Project's estimated construction vendor fuel consumption. (Urban Crossroads, 2018f, pp. 20-21)

5. Conclusion

The Project's construction phase would consume electricity and fuel resources. Project construction would represent a "single-event" energy demand and, for this reason, would not require any ongoing, permanent commitment of electricity or fuel resources. In summary, the proposed Project's construction phase is calculated to consume approximately 393,703 kWh of electricity, 38,852 gallons of gasoline, and 35,664 gallons of diesel fuel.

Electricity would be provided to the Project site by Southern California Edison and gasoline and diesel fuel would be supplied by regional commercial vendors. The Project would not cause or result in the need for additional energy facilities or energy delivery systems. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. (Urban Crossroads, 2018f, p. 26) Furthermore, the Project would be required to comply with applicable state and local regulations and mitigation measures from this EIR that would preclude unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment – including MM 4.3-5, which would restrict idling on the Project site for more than three (3) consecutive minutes and is more stringent than the State's five (5) minute limit on idling.

As supported by the information presented above and on the preceding pages, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary and would result in a less-than-significant environmental impact. (Urban Crossroads, 2018f, p. 24)

C. *Project Operation Energy Use*

1. Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total vehicle miles traveled and estimated fuel economies of vehicles accessing the Project site. Based on the annual vehicle miles traveled and the average vehicle fuel economies of Project traffic, the Project's operational activities are estimated to consume 559,067 gallons of gasoline for passenger vehicles and 3,969,596 gallons of diesel fuel for trucks on an annual basis. Refer to Tables 4-7 through 4-11 in *Technical Appendix L* for a detailed breakdown of the Project's estimated annual fuel consumption. (Urban Crossroads, 2018f, p. 24)

2. Facility Energy Demands

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. The Project's facility operational energy demands are calculated at 1,019,131 kBTU/year of natural gas and 1,186,354 kWh/year of electricity. Refer to Table 4-12 in *Technical Appendix L* for the Project's annual energy demand. (Urban Crossroads, 2018f, p. 26)

3. Conclusion

The Project's operational phase would consume electricity and fuel resources. Project operation would require ongoing, permanent commitment of electricity or fuel resources. In summary, the proposed Project's operational activities are estimated to consume approximately 1,019,131 kBTU/year of natural gas, 1,186,354 kWh/year of electricity, 559,067 gallons of gasoline, and 3,969,596 gallons of diesel fuel on an annual basis.

Electricity would be provided to the Project site by Southern California Edison, natural gas would be provided to the Project site by SoCal Gas, and gasoline and diesel fuel would be supplied by regional commercial vendors. The Project would not cause or result in the need for additional energy facilities or energy delivery systems. The Project's estimated annual vehicle miles traveled is not atypical or excessive for its proposed use and scale and the Project would not result in excessive or wasteful vehicle trips. Parcel delivery companies select locations for parcel sorting/distribution centers that facilitate efficiency in the moving of packages from their origin to destination. Furthermore, the location of the Project site in proximity to major local arterial streets and several state highway facilities would minimize the total vehicle miles traveled between the state highway system and the Project site. The parcel sorting/distribution center use proposed by the Project is not inherently energy intensive, and the Project energy demands in total are calculated to be comparable to, or less than, other parcel sorting/distribution centers of similar scale and configuration. The Project would be served by the existing energy transmission and supply network and would not cause or result in the need for additional energy producing or transmission facilities. In addition, the Project would be required to adhere to the current CBSC Title 24 energy efficiency and building standards in effect at the time of building construction. Based on the preceding, the Project's energy demands and energy consumption would not result in adverse

environmental impacts associated with the inefficient, wasteful, or otherwise unnecessary use of energy. (Urban Crossroads, 2018f, pp. 27-28)

5.5 Effects Found not to be Significant as Part of the Initial Study Process

CEQA Guidelines § 15128 requires that an EIR:

> *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

The Project's Initial Study, which is included as *Technical Appendix A* to this EIR, determined that the proposed Project had no potential to result in significant impacts to the areas of mineral resources and recreation. Therefore, these issue areas are not required to be analyzed in detail in Section 4.0, *Environmental Analysis*, of this EIR. A brief summary of the Project's impacts to mineral resources and recreation is presented below, with a more detailed analysis and reference sources provided in the Project's Initial Study contained in *Technical Appendix A.*

A. Mineral Resources

The Project site is not located within an area known to be underlain by regionally- or locally-important mineral resources or within an area that has the potential to be underlain by regionally- or locally-important mineral resources. Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California.

B. Recreation

The Project entails development of the Project site with a parcel sorting/distribution facility. The Project Applicant does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. The Project also does not entail the construction of any new on- or off-site recreation facilities. Accordingly, implementation of the proposed Project would neither result in the increased use or substantial physical deterioration of an existing neighborhood or regional park nor result in environmental effects related to the construction or expansion of recreational facilities.

6.0 ALTERNATIVES

CEQA Guidelines § 15126.6(a) describes the scope of alternatives to a proposed project that an EIR must evaluate as:

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

As discussed in Section 4.0 of this EIR, the proposed Project would result in four (4) significant adverse environmental effects that cannot be mitigated to below a level of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Agriculture and Forestry Resources: The Project would convert Farmland with substantial agricultural production value to non-agricultural use. The loss of the Farmland on the Project site would be a significant direct and cumulatively-considerable impact in consideration of the past, ongoing, and projected future loss of farmland in the CBDA.

- Air Quality: After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, long-term operational-related NO_X emissions would still exceed the applicable SCAQMD regional threshold for daily emissions. The Project's NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations, which do not meet regional attainment status).

- Land Use and Planning: The Project's conflict with the existing City of Chino General Plan Land Use Map and The Preserve Specific Plan Land Use Plan would indirectly result in significant environmental impacts, including impacts related air pollutant emissions and traffic congestion.

- Transportation/Traffic: The addition of Project-related traffic would contribute to LOS deficiencies at numerous Study Area intersections and *CMP* facilities during Existing plus Project, Opening Year, and Horizon Year (2040) traffic conditions.

6.1 ALTERNATIVES UNDER CONSIDERATION

CEQA Guidelines § 15126.6(e) requires that an EIR include an alternative that describes what would reasonably be expected to occur on the property in the foreseeable future if the proposed Project were not approved, based on current plans and consistent with available infrastructure and community services (i.e., "no project" alternative). For projects that include a revision to an existing land use plan, the "no project" alternative is considered to be the continuation of the existing land use plan into the future. For projects other than a land use plan (for example, a development project on an identifiable property), the "no project" alternative is considered to be a circumstance under which the project does not proceed (CEQA Guidelines § 15126(e)(3)(A-B). Because the proposed Project includes both a land use plan amendment (and change of zone) and a site-specific development proposal, this EIR includes two "no project" alternative analyses. The potential scenario where the Project does not proceed is evaluated as the "No Development Alternative." The potential scenario where the existing land use plan is continued into the future is evaluated as the "No Project Alternative."

The following scenarios are identified by the City of Chino as potential alternatives to the Project.

6.1.1 NO DEVELOPMENT ALTERNATIVE

The No Development Alternative considers no development on the Project site beyond what occurs on the site under existing conditions (as defined in EIR Section 2.0). As such, the dairy farm, cultivated agricultural fields, two (2) residences, and ancillary agricultural buildings/improvements would remain on-site.[1] Under this alternative, no new improvements would be made to the Project site. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing state.

6.1.2 NO PROJECT ALTERNATIVE

The No Project Alternative would develop the Project site with uses that comply with The Preserve Specific Plan's existing land use designation for the site (i.e., "Public Facility") and, also, that are consistent with the development restrictions applied to the site by the Specific Plan's "Chino Airport Overlay" regulations. Accordingly, this alternative considers the potential environmental impacts that would occur where the northern portion of the Project site is developed with a place of worship, library, and/or museum and the southern portion of the Project site is developed with minor utilities facilities (e.g., electrical substation, water/sewer pump station) and/or a parking lot for automobiles and/or trucks. This alternative was selected by the Lead Agency to compare the environmental effects of the Project against a development proposal that conforms to the land use standards and development regulations contained within The Preserve Specific Plan.

[1] As noted in EIR Section 2.0, *Environmental Setting*, a dairy farm was operational on the western portion of the Project site at the time the NOP for this EIR was published on September 23, 2017, but has since ceased operation. The analysis presented for the No Development Alternative assumes the Project site contains an active dairy because the dairy was operational at the time the site's "existing conditions" were established upon publication of the NOP. There is nothing precluding a dairy operation from re-establishing on the western portion of the property.

6.1.3 Warehouse Complex Alternative

The Warehouse Complex Alternative would develop the Project site with two (2) high-cube warehouse buildings – one (1) approximately 1,100,000 s.f., north-south oriented building on the northern portion of the property and one (1) approximately 300,500 s.f., east-west oriented building on the southern portion of the property. This alternative was selected by the Lead Agency to evaluate an alternative that allows for the Project site to be developed with a different industrial land use (i.e., high-cube warehouse) than the industrial land use proposed by the Project (i.e., parcel sorting/distribution hub facility). The Warehouse Complex Alternative is identified as the environmentally superior alternative.

6.2 Alternatives Considered and Rejected

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines § 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines § 15126.6(f)(1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. A summary of the alternatives that were considered but rejected are described below.

6.2.1 Larger Project Alternative

As described in a NOP published on December 24, 2016, the original iteration of the Project included the development of a parcel sorting/distribution hub facility with a total of 765,274 s.f. of building area on an approximately 140-acre site. The Project's original proposal included approximately 35% more building area and 47% more physical area than the currently proposed Project. Based on feedback from the City of Chino and with consideration of market demand, the Project Applicant decided to scale back the size and intensity of the Project. Were the Project's original, larger proposal considered as an alternative (Larger Project Alternative), it would increase the magnitude of all of the Project's environmental impacts. Because the Larger Project Alternative would not reduce or avoid any of the Project's environmental impacts, it is rejected from consideration.

6.2.2 ALTERNATIVE SITES

CEQA does not require that an analysis of alternative sites be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site then an alternative sites analysis should be considered and analyzed in the EIR. In making the decision to include or exclude an analysis of an alternative site, the "key question and first step in analysis 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 to be considered for inclusion in the EIR" (CEQA Guidelines § 15126.6(f)(2)).

Under existing conditions, the Project site is largely disturbed and primarily used for dairy and agricultural operations. The western portion of the site is occupied by a dairy farm and ancillary buildings and two (2) residences. The eastern portion of the site is primarily occupied by cultivated fields used to grow cattle feed. Based on review of aerial photography and the Chino General Plan Land Use Map, there are no other available properties in the City of Chino with similar accessibility to the regional goods movement system as the Project site (see discussion in paragraph below) and that are large enough to support the Project site – including undeveloped property owned by the Chino Airport – that the Project Applicant has the reasonable possibility of controlling and that would have fewer developmental and environmental constraints than the Project site evaluated in this EIR.

Furthermore, development of the Project in an alternative location would reasonably result in similar environmental impacts as would occur by developing the Project on the site under consideration; aside from impacts to agricultural resources, a majority of the Project's significant environmental impacts are related to vehicles traveling to/from the Project site (and not related to the presence/absence of sensitive resources on the Project site or its location near sensitive receptors). Vehicle-related impacts are a direct reflection of the Project's expected operational characteristics as a parcel sorting and distribution center, regardless of which property the Project is located on. In fact, if an alternative site were selected for the Project that was located farther from major arterial roads that are designated truck routes, like Merrill Avenue and Euclid Avenue, for example, or regional freeways like I-15, SR-60 or SR-71, than is the Project site under consideration, the severity of the Project's air quality impacts related to tailpipe emissions (and potentially traffic/transportation impacts) would increase as miles traveled for vehicles going to/from the Project would increase.

For these reasons, an alternative sites analysis is not required for the Project.

6.3 ALTERNATIVE ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project (as disclosed in Section 4.0, *Environmental Analysis*, of this EIR). A conclusion is provided for each topic as to whether the alternative results in one of the following: (1) reduction or elimination of the proposed Project's impact, (2) a more severe impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. At the end of this EIR section, Table 6-1, *Alternatives to the Proposed Project – Comparison of*

Environmental Impacts, summarizes the impacts of the various alternatives relative to the proposed project and also summarizes the ability of the various alternatives to meet the basic objectives of the Project.

As presented in EIR Subsection 3.2, the Project's basic objectives are:

A: To develop an underutilized property of more than 70 acres with a parcel delivery services hub facility that will modernize and streamline parcel delivery logistics in the Inland Empire area.

B: To provide a viable reuse plan for former agricultural property that maximizes feasible development of the site so that the property continues to be economically productive when agricultural activities cease.

C: To benefit the City of Chino economy by developing a large property with an employment-generating land use with long-term economic viability.

D: To create an employment-generating business in the City of Chino thereby reducing the need for members of the local workforce to commute outside the area for employment.

E: To develop a project in close proximity to regional transportation routes, including designated truck routes, to minimize traffic congestion on surface streets, reduce vehicle miles traveled (VMT), and minimize concomitant air pollution emissions from vehicle sources.

F: To develop a project with an architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.

G: To develop a property that has access to existing, available infrastructure.

H: To add an industrial use in the City of Chino that will add to the diversity of uses already present in the City.

6.3.1 No Development Alternative

The No Development Alternative allows decision-makers to compare the environmental impacts of approving the proposed Project to the environmental impacts that would occur if the property were left in its existing conditions for the foreseeable future. Under existing conditions, the Project site is largely disturbed and primarily used for dairy and agricultural operations. The western portion of the site is occupied by two (2) residences, dairy operations that house approximately 700 heads of cattle, and several agricultural support buildings/structures (e.g., cattle pens and structures for shelter, feed, and water). The eastern portion of the site is primarily occupied by cultivated fields used to grow cattle feed. Ornamental landscaping, including trees and groundcover, are located near the residences along the northern boundary of the Project site and mature trees are located in the northeastern corner of the site. Refer to EIR Section 2.0 for a detailed description of the Project site's existing physical conditions.

A. Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. Under the No Development Alternative, the visual character and quality of the site would be maintained in its existing condition, which would be at odds with abutting properties that are in the process of developing – or planned to develop – as industrial/business parks. Although the No Project Alternative would not complement the character or quality of existing and planned development surrounding the Project site, the aesthetic impact of leaving the site in its existing condition would be less than significant. Compared to the proposed Project, this alternative's aesthetics impact would be neutral.

B. Agriculture and Forestry

The No Development Alternative would leave the property in its existing condition and the site would continue to be utilized for agricultural activities. The No Development Alternative would not convert any portion of the Project site to non-agricultural use and, as such, this alternative would avoid the Project's significant and unavoidable impact to agricultural resources.

C. Air Quality

Under the No Development Alternative, existing residential and agricultural uses would remain on the Project site for the foreseeable future and no new sources of air pollution would be introduced on the Project site. The No Project Alternative would generate air pollution from day-to-day agricultural activities on the site as well as tailpipe emissions from employees and residents traveling to and from the Project site; however, the air pollutant emissions from the No Development Alternative would be substantially lower than the emissions that would result from the Project. The No Development Alternative would avoid the Project's significant and unavoidable impact related to NO_X emissions.

D. Biological Resources

The No Development Alternative would leave the property in its existing condition, which would include periodic disturbances related to plowing agricultural fields, discing fallow fields, and other routine, on-site maintenance activities. The No Development Alternative does have the potential to adversely affect sensitive or protected avian species, including the burrowing owl and/or nesting birds because surveys would not be conducted on-site prior to ground-disturbing/vegetation-clearing activities (such as plowing and discing fields) and protective measures would not be implemented to avoid or minimize impacts to these avian species. The No Development Alternative would result in greater impacts to biological resources than the proposed Project.

E. Cultural Resources & Tribal Cultural Resources

The No Development Alternative would leave the property in its existing condition, which would include periodic ground disturbances related to plowing agricultural fields, discing fallow fields, and other routine, on-site maintenance activities. Although not expected, the No Development Alternative does have the potential to uncover and adversely affect archaeological and/or tribal cultural resources during routine ground-disturbing activities on-site. In the event that archaeological and/or tribal cultural resources were uncovered on-site, the No Development Alternative would result in greater impacts than the Project because the No Development

Alternative would not be obligated to implement any procedures to protect, study, and preserve artifacts that were discovered.

F. Geology and Soils

The No Development Alternative would leave the property in its existing condition, which would include cattle activity within dirt pens and periodic ground disturbances related to plowing agricultural fields, discing fallow fields, and other routine, on-site maintenance activities; these activities all have the potential to result in water and/or wind erosion that would not occur with the Project. The No Development Alternative would not construct any new structures on the Project site; accordingly, there would be no potential for this alternative to expose people or structures to safety risks associated with geologic hazards.

G. Greenhouse Gas Emissions

Under the No Development Alternative, existing residential and agricultural uses would remain on the Project site for the foreseeable future and no new sources of GHG emissions would be introduced on the Project site. The No Development Alternative would generate GHG emissions from day-to-day agricultural activities on the site (including methane emissions from cattle, which can be substantial) as well as tailpipe emissions from employees and residents traveling to and from the Project site; however, the GHG emissions from the No Development Alternative would be substantially lower than the emissions that would result from the Project.

H. Hazards and Hazardous Materials

Under the No Development Alternative, the existing dairy farms, ancillary structures, ornamental landscape nurseries, and residential homes that are present on the Project site remain in place, meaning the existing structures on-site that may contain asbestos containing materials and/or lead based paint would remain in place. Likewise, the on-site septic systems would in place and in operation. No new hazards would be introduced to the Project site, as has the potential to occur with the Project. Because the No Development Alternative would not alter or disturb the existing structures or septic systems on-site, no impact would occur under this alternative related to the handling and disposal of asbestos containing materials, lead base paint, or septic systems. However, remediation of these potential sources of on-site contamination is a benefit of the proposed Project that would not be realized under this alternative.

I. Hydrology and Water Quality

No changes to existing hydrology and drainage conditions would occur under the No Development Alternative. No storm water drainage improvements would be constructed and rainfall would be discharged from the site as sheet flow, as occurs under existing conditions. However, under this alternative, the storm water runoff leaving the site would not be treated and would continue to carry sediment and other potential water-borne pollutants, as occurs under existing conditions. The No Development Alternative would result in a greater impact to hydrology than the proposed Project; but, impacts are expected to be less than significant.

J. Land Use and Planning

The No Development Alternative would result in no new development on the Project site and the site's existing agricultural and residential uses – which are permitted by The Preserve Specific Plan as legally non-conforming uses – would continue into the foreseeable future. The No Development Alternative would avoid the Project's significant and unavoidable environmental effects related to land use and planning.

K. Noise

Under the No Development Alternative, existing residential and agricultural uses would remain on the Project site for the foreseeable future and no new sources of noise would be introduced on the Project site. The No Development Alternative would generate minimal noise emissions from day-to-day agricultural activities on the site as well as traffic noise from employees and residents traveling to and from the Project site; however, the noise from the No Development Alternative would be substantially lower than the noise emissions that would result from the Project.

L. Population and Housing

Under the No Development Alternative, no new development would occur on the Project site; therefore, this alternative would have no potential to directly or indirectly induce substantial unplanned population growth or to existing housing or substantial numbers of people. Therefore, the Project's less-than-significant impacts due to population and housing would not occur under the No Development Alternative.

M. Public Services

The No Development Alternative would not result in the need for additional police, fire protection, library services, or school services. Selection of this alternative would avoid the Project's less-than-significant impacts to public services.

N. Transportation and Traffic

Under the No Development Alternative, no new development would occur on the property and no new traffic would be generated. The No Development Alternative would continue to generate traffic from employees and residents traveling to and from the Project site, as well as any delivery or haul trips associated with on-site dairy and agriculture operations; however, this traffic is minimal and not expected to result in adverse impacts to the local or regional transportation network. The No Development Alternative would result in less traffic than the proposed Project and would avoid the Project's significant and unavoidable traffic impacts.

O. Utilities and Service Systems

No additional domestic water, sewer, or storm water drainage facilities would be needed for the No Development Alternative, and there would be no change in the demand for domestic water or waste water treatment services as compared to existing conditions. Also, this alternative would not result in the Project's increased demand for solid waste collection and disposal. Selection of this alternative would avoid all of the Project's demand placed on utilities and service systems.

P. Conclusion

Implementation of the No Development Alternative would result in no physical environmental impacts beyond those that have historically occurred on the property. All significant effects of the proposed Project would be avoided by the selection of this alternative. Because this alternative would avoid all of the Project's significant environmental impacts, it warrants consideration as the "environmentally superior alternative." However, pursuant to CEQA Guidelines § 15126.6(e)(2), if a no project alternative is identified as the "environmentally superior alternative" then the EIR shall also identify an environmentally superior alternative among the other alternatives. The Warehouse Complex Alternative, as described in Subsection 6.3.3, is identified as the environmentally superior alternative.

The No Development Alternative would fail to meet all of the Project's objectives.

6.3.2 No Project Alternative

The Preserve Specific Plan designates the Project site for "Public Facilities" land uses which, normally, would allow one or more of 13 land uses specified within The Preserve Specific Plan. However, the Project site also lies within The Preserve Specific Plan's "Chino Airport Overlay," with the approximate southern half of the Project site located, primarily, within Airport Safety Zone II (a small sliver of the southern portion of the site is located within Airport Safety Zone I) and the approximate northern half of the Project site located within Airport Safety Zone III. Upon consideration of the development restrictions placed on the Project site by the Specific Plan's "Chino Airport Overlay," the range of allowable land uses on the Project site becomes relatively limited. The No Project Alternative considers development of the Project site with land uses that are permitted both by the Specific Plan's "Public Facilities" land use designation and the Specific Plan's land use controls within the "Chino Airport Overlay." Accordingly, this alternative envisions the approximate northern half of the Project site being developed by one or more of the following: place of worship, library, and/or museum; with the approximate southern half of the Project site being developed with minor utilities facilities (e.g., electrical substation, water/sewer pump station) and/or a parking lot for automobiles and/or trucks.

A. Aesthetics

Under the No Project Alternative, the character of the Project site would be changed from agricultural to non-agricultural uses, as would occur under the proposed Project. The No Project Alternative would construct different structures, facilities, and improvements on the Project site as compared to the industrial-type structures and improvements proposed by the Project; however, the No Project Alternative is not expected to be visually incompatible with surrounding existing and planned industrial land uses and would not result in a significant adverse effect related to visual character or quality. Overall, the No Project Alternative's effect on aesthetics would be similar to the Project.

B. Agriculture and Forestry

The No Project Alternative would convert the entire Project site to non-agricultural use and would result in identical impacts to agricultural resources as the proposed Project.

C. Air Quality

The No Project Alternative is expected to result in a less-than-significant air quality impact during construction and, likely, would achieve a substantial reduction in peak daily construction emissions relative to the Project due to the reduction in the construction activities that would occur on the Project site.

Because the No Project Alternative would develop the Project site with land uses that are not expected to generate or attract as much traffic as the proposed Project, this alternative is expected to reduce – and, possibly, avoid – the Project's significant and unavoidable impact related to operational NO_X emissions (NO_X emissions primarily occur from vehicle tailpipe emissions).

Like the Project, the No Project Alternative would generate odors during short-term construction activities (e.g., diesel equipment exhaust, architectural coatings, asphalt) and long-term operation (e.g., diesel exhaust). However, and similar to the proposed Project, these odors would occur intermittently, be of short-term duration, and would not be substantial. Long-term operation of this alternative would not create objectionable odors affecting a substantial number of people and impacts would be less than significant with compliance with mandatory regulatory requirements.

D. Biological Resources

The No Project Alternative would develop the entire Project site and would result in identical impacts to biological resources as the Project. The No Project Alternative would require similar mitigation as the proposed Project and, after mitigation, both the No Project Alternative and the proposed Project would result in less-than-significant impacts to biological resources.

E. Cultural Resources & Tribal Cultural Resources

The No Project Alternative would develop the entire Project site and would result in identical impacts to cultural and tribal cultural resources as the Project. The No Project Alternative would require similar mitigation as the proposed Project and, after mitigation, both the No Project Alternative and the proposed Project would result in less-than-significant impacts to cultural resources and tribal cultural resources.

F. Geology and Soils

This alternative would disturb the same physical area as the proposed Project and would, therefore, have the same potential for soil erosion during the construction phase as the proposed Project. Soil erosion impacts would be less than significant under both the Project and this alternative due to mandatory compliance with federal, State, and local water quality standards. The No Project Alternative would be required to comply with the same mandatory regulatory requirements as the proposed Project to preclude substantial hazards associated with seismic ground shaking. The No Project Alternative would result in a similar, less-than-significant impact to geology and soils as the proposed Project.

G. Greenhouse Gas Emissions

Because the No Project Alternative would result in less building space than the proposed Project, the No Project Alternative is expected to require less energy to construct and operate than the Project and, therefore, result in a reduction of non-mobile source GHG emissions as compared to the proposed Project. Additionally, the No Project Alternative would generate fewer daily vehicle trips than the proposed Project and would reduce the amount of mobile source GHG emissions. Like the proposed Project, the No Project Alternative would be required to comply with the City of Chino CAP to reduce GHG emissions and would result in a less-than-significant impact.

H. Hazards and Hazardous Materials

Neither implementation of the No Project Alternative nor the proposed Project would result in a significant impact related to hazards or hazardous materials. Land uses that would occur on-site under the No Project Alternative would have the potential to handle and store hazardous materials, as is the case with the Project. With mandatory regulatory compliance, both the No Project Alternative and the proposed Project would pose a less-than-significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

I. Hydrology and Water Quality

Neither the proposed Project nor the No Project Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects. Accordingly, implementation of the proposed Project and the No Project Alternative would both result in less-than-significant impacts to existing drainage patterns.

In the long-term, potential hydrology and water quality effects on the Project site would be similar under both the No Project Alternative and the Project. Like the proposed Project, the No Project Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project site. Additionally, like the proposed Project, the No Project Alternative would be required to implement a long-term WQMP to ensure that storm water runoff leaving the site does not contain substantial pollutant concentrations. Both the proposed Project and the No Project Alternative would result in less-than-significant operational impacts to hydrology and water quality.

J. Land Use and Planning

The No Project Alternative would develop the Project site in accordance with the City of Chino General Plan and The Preserve Specific Plan. Accordingly, this alternative would not conflict with any applicable land use planning document and would avoid the Project's significant and unavoidable land use and planning impact.

K. Noise

Noise associated with this alternative would occur during short-term construction activities and under long-term operation. Under both the construction and operational scenarios, the No Project Alternative is expected

to reduce the Project's less-than-significant noise impacts due to the decrease in the intensity of construction activities and on-site operational activities and a decrease in the amount of traffic traveling to/from the Project site.

L. Population and Housing

Like the proposed Project, the No Project Alternative would demolish two (2) existing residences on the Project site and would develop the site with non-residential land uses (as well as site improvements and utility improvements necessary to serve proposed development). Neither the Project nor the No Project Alternative would result in growth or development that was unanticipated by the City of Chino and/or cannot be accommodated by the existing population base or by existing/planned public facilities and services and both the proposed Project and the No Project Alternative would result in less-than-significant environmental effects related to population and housing.

M. Public Services

The No Project Alternative would increase the demand for police and fire protection services at the Project site relative to existing conditions (but would have a lesser overall demand for public services than the proposed Project). The Project site already receives public services under existing conditions, and the demand for public services created by the No Project Alternative is not expected to exceed the capability of any public service provider or require the need to construct new public service facilities. The No Project Alternative, like the proposed Project, would result in a less-than-significant impact on public services.

N. Transportation and Traffic

The No Project Alternative would generate less vehicle trips on a daily basis compared to the proposed Project. Selection of this alternative would reduce the amount to daily and peak hour traffic traveling to and from the Project site and, therefore, would reduce the potential for direct and cumulatively-considerable and unavoidable impacts to Study Area intersections during Opening Year (2020) or Horizon Year (2040) traffic conditions (refer to EIR Subsection 4.14). However, based on existing and projected future traffic conditions in the vicinity of the Project site, it is reasonable to assume that the No Project Alternative would not be able to avoid all of the impacts to Study Area intersections during Opening Year (2020) and Horizon Year (2040) that would occur with the Project and, therefore, would result in significant and unavoidable effects on transportation and traffic.

O. Utilities and Service Systems

The No Project Alternative would result in a lesser demand for water, sewer, storm water drainage service/facilities, and solid waste collection and disposal services than the proposed Project. The No Project Alternative would result in a less-than-significant impact on utilities and services systems (as would the Project).

P. Conclusion

The No Project Alternative would avoid the Project's significant and unavoidable impact to land use and planning and, likely, would avoid the Project's significant and unavoidable air quality impact associated with NOx emissions that are primarily a result of vehicle tailpipe emissions associated with the Project's parcel sorting and delivery facility operation. The No Project Alternative would likely avoid some, but not all, of the Project's transportation and traffic impacts. The No Project Alternative would not avoid the Project's significant and unavoidable impact to agricultural resources.

The No Project Alternative would fail to meet the Project's Objectives "A," "B," "C," "D," and "E." Although this alternative would develop the site according to its existing land use designation, it would result in the development of land uses (i.e., place of worship, library, museum, utility substation, and/or parking lot) for which there is no demonstrated demand in the marketplace and land uses that would not be as economically advantageous to the City and surrounding area as the parcel sorting/distribution hub facility proposed by the Project.

6.3.3 Warehouse Complex Alternative

The Warehouse Complex Alternative considers development of the Project site with two (2) high-cube warehouse buildings – one (1) approximately 1,100,000 s.f., north-south oriented building on the northern portion of the property and one (1) approximately 300,500 s.f., east-west oriented building on the southern portion of the property. The architectural style and character of the high cube warehouses would be similar to the Project's architectural style and the style demonstrated on the property to the east that contains the Watson Industrial Park Chino development. The Warehouse Complex Alternative also would install similar landscape improvements and on- and off-site infrastructure improvements as the Project.

There are many different classifications of warehouse uses, from highly automated mid-stream consolidation and distribution facilities to facilities with significant storage functions and direct distribution of ecommerce product to end users. According to the Institute of Traffic Engineers (ITE), warehouses can generate traffic ranging from 1.4 to approximately 8.2 daily total trips per 1,000 s.f. of building area. To provide a comparison of Project's environmental effects against a relatively low-intensity warehouse use, the analysis of this alternative assumes the Warehouse Complex Alternative would operate as a high-cube transload and short-term storage facility, which is characterized by short storage duration, high throughput, and high efficiency. The ITE estimates that high-cube transload and short-term storage facilities generate 1.4 daily total trips per 1,000 s.f. of building area.

A. Aesthetics

As previously described in EIR Subsection 4.1, the Project site is not visible from any State- or locally-designated scenic highway. Accordingly, neither the proposed Project nor this alternative would negatively impact a scenic highway. Also, neither this alternative nor the proposed Project would damage scenic on-site resources, because such resources are not present on the property. Under the Warehouse Complex Alternative, the aesthetic quality and character site improvements would be similar to the proposed Project, with the

exception that two (2) buildings would be constructed instead of one (1) building. Nonetheless, under either this alternative or the proposed Project, aesthetic impacts would be less-than-significant.

B. Agriculture and Forestry

The Warehouse Complex Alternative would convert the entire Project site to non-agricultural use and would result in identical, significant and unavoidable, impacts to agricultural resources as the proposed Project.

C. Air Quality

The Warehouse Complex Alternative would have an incrementally longer construction phase than the Project due to a larger building area. As such, the aggregate of the air pollutant emissions generated during construction of the Warehouse Complex Alternative would be increased relative to the Project. However, the peak daily intensity of construction activities on the subject property would likely be similar under both this alternative and the proposed Project and both the Warehouse Complex Alternative and the Project would result in less-than-significant air quality impacts during construction.

The Warehouse Complex Alternative would generate approximately 1,961 vehicle trips per day (using ITE trip generation rate of 1.4 vehicle trips per day per 1,000 s.f. of high-cube transload and short-term storage building area). For comparison, the Project's peak operations would generate approximately 50% more daily vehicle traffic: approximately 3,905 vehicle trips per day. Accordingly, the Warehouse Complex Alternative would result in a measurable reduction in operational mobile-source air pollutant emissions relative to the Project's peak periods of operation. Notwithstanding, operational-related NO_X emissions under this Alternative are expected to exceed the SCAQMD numerical thresholds for daily emissions even after the application of feasible mitigation measures and, therefore, would result in a significant and unavoidable impact.

Due to a reduction in the number of diesel-powered trucks that would travel to/from the Project site under the Warehouse Complex Alternative, during both peak and normal operations, this alternative is expected to reduce the Project's less-than-significant impact related to DPM emissions.

Like the Project, the Warehouse Complex Alternative would generate odors during short-term construction activities (e.g., diesel exhaust, architectural coatings, asphalt) and long-term operation (e.g., diesel exhaust). However, and similar to the proposed Project, these odors would occur intermittently, be of short-term duration, and would not be substantial. Long-term operation of this alternative would not create objectionable odors affecting a substantial number of people and impacts would be less than significant with compliance with mandatory regulatory requirements.

D. Biological Resources

The Warehouse Complex Alternative would develop the entire Project site and would result in identical impacts to biological resources as the Project. The Warehouse Complex Alternative would require similar mitigation as the proposed Project and, after mitigation, both the Project and this alternative would result in less-than-significant impacts.

E. Cultural Resources & Tribal Cultural Resources

The Warehouse Complex Alternative would develop the entire Project site and would result in identical impacts to cultural and tribal cultural resources as the Project. The Warehouse Complex Alternative would require similar mitigation as the proposed Project and, after mitigation, both the Project and this alternative would result in less-than-significant impacts.

F. Geology and Soils

This alternative would disturb the same physical area as the proposed Project and would, therefore, have the same potential for soil erosion during the construction phase than the proposed Project. Soil erosion impacts would be less significant under both the Project and this alternative due to mandatory compliance with federal, State, and local water quality standards. The Warehouse Complex Alternative would be required to comply with the same mandatory regulatory requirements as the proposed Project to preclude substantial hazards associated with seismic ground shaking. The Warehouse Complex Alternative would result in a similar, less-than-significant impact to geology and soils as the proposed Project.

G. Greenhouse Gas Emissions

Because the Warehouse Complex Alternative would increase the Project's building space by approximately 900,00 s.f., the Warehouse Complex Alternative is expected to require more energy to construct and operate than the Project and, therefore, result in an incremental increase of non-mobile source GHG emissions as compared to the proposed Project. The Warehouse Complex Alternative Option however, would generate substantially less traffic than the Project during normal and peak operations and would reduce the Project's GHG emissions from mobile sources. Like the Project, the Warehouse Complex Alternative would be required to comply with the City of Chino CAP and would result in a less-than-significant impact related to GHG emissions.

H. Hazards and Hazardous Materials

Both the Warehouse Complex Alternative and the Project would result in less-than-significant impacts related to hazards or hazardous materials. Building occupants that would use the site under the Warehouse Complex Alternative would have the same or similar potential to handle and store hazardous materials as would the proposed Project. With mandatory regulatory compliance, neither the Warehouse Complex Alternative nor the proposed Project would be expected to pose a significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

I. Hydrology and Water Quality

Neither the proposed Project nor the Warehouse Complex Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects. Accordingly, implementation of the proposed Project and the Warehouse Complex Alternative would both result in less-than-significant impacts to existing drainage patterns.

In the long-term, potential hydrology and water quality effects on the Project site would be similar under both the Warehouse Complex Alternative and the Project. Like the proposed Project, the Warehouse Complex Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project site. Additionally, like the proposed Project, the Warehouse Complex Alternative would be required to implement a long-term WQMP to ensure that storm water runoff leaving the site does not contain substantial pollutant concentrations. Both the proposed Project and the Warehouse Complex Alternative would result in less-than-significant operational impacts to hydrology and water quality.

J. Land Use and Planning

Both this alternative and the Project would require a General Plan Amendment and an amendment to The Preserve Specific Plan to develop the subject property as proposed. Potential land use/planning impacts would be identical (i.e., significant and unavoidable) under this alternative and the proposed Project.

K. Noise

Noise associated with this alternative would occur during short-term construction activities and under long-term operation. The types of daily construction activities conducted on the site would be similar (and less than significant) under both the Warehouse Complex Alternative and the Project, although the length of construction activities would be increased under this alternative as a greater building area would be constructed on-site. Therefore, it is anticipated that the duration of noise impacts during the building construction phase would be increased under this alternative as compared to the proposed Project. Under long-term operational conditions, noise impacts from operations on the Project site (i.e., stationary noise) would be similar (and less than significant) relative to the Project due to relatively similar operational practices (i.e., cargo loading/unloading activities). However, traffic noise would be reduced under the Warehouse Complex Alternative because this alternative would generate less traffic than the Project during normal and peak operations.

L. Population and Housing

Like the proposed Project, the Warehouse Complex Alternative would demolish two (2) existing residences on the Project site and would develop the site with non-residential land uses (as well as site improvements and utility improvements necessary to serve proposed development). Neither the Project nor the Warehouse Complex Alternative would result in growth or development that was unanticipated by the City of Chino and/or cannot be accommodated by the existing population base or by existing/planned public facilities and services and both the proposed Project and the Warehouse Complex Alternative would result in less-than-significant environmental effects related to population and housing.

M. Public Services

The Warehouse Complex Alternative would increase the demand for police and fire protection services at the Project site relative to existing conditions. The Project site already receives public services under existing conditions, and the demand for public services created by the Warehouse Complex Alternative is not expected to exceed the capability of any public service provider or require the need to construct new public service

facilities. The Warehouse Complex Alternative, like the proposed Project, would result in a less-than-significant impact on public services

N. Transportation and Traffic

The Warehouse Complex Alternative would generate approximately 1,961 vehicle trips on a daily basis with approximately 112 AM peak hour trips and 140 PM peak hour trips (utilizing the ITE trip generation rate for high-cube transload and short-term storage warehouse land use). In comparison, the proposed Project would generate approximately 3,905 vehicle trips on a daily basis with approximately 589 AM peak hour trips and 409 PM peak hour trips at peak operations. Selection of this Alternative would substantially decrease the amount of daily and peak hour traffic traveling to/from the Project site (relative to the Project); however, based on existing and projected future traffic conditions in the vicinity of the Project site, it is reasonable to assume that the Warehouse Complex Alternative would not be able to avoid all of the Project's impacts to Study Area traffic facilities during Opening Year (2020) and Horizon Year (2040) and, therefore, would result in significant and unavoidable effects on transportation and traffic.

O. Utilities and Service Systems

Due to a larger building area, the Warehouse Complex Alternative is expected to have a greater demand for utilities and services systems, including water, sewer, storm water drainage service/facilities, and solid waste collection and disposal, than the Project. However, as with the Project, the Warehouse Complex Alternative is expected to result in a less-than-significant impact to utilities and services systems.

P. Conclusion

The Warehouse Complex Alternative would not avoid any the Project's significant and unavoidable impacts; but, would reduce the severity of the Project's impacts to air quality and transportation and traffic. This alternative would reduce the Project's impacts to greenhouse gas emissions and noise and would increase the Project's impacts to utilities and services systems (although in all instances both the Project's and the Warehouse Complex Alternative's impacts would be less than significant). All other impacts associated with the Warehouse Complex Alternative would be similar to the Project.

The Warehouse Complex Alternative would not meet the Project Objective "A" due to this alternative offering high-cube warehouse distribution facilities instead of a parcel delivery services hub facility that is demanded by the market. This alternative also would not meet Project Objective "H" due to this alternative offering high-cube warehouse distribution facilities similar to other facilities already operational or under construction in the City of Chino, rather than diversifying the local industrial market. The Warehouse Complex Alternative would meet Project Objectives 'C" and "D" but would be less effective at achieving this goal than the Project because high-cube warehousing uses, generally, have fewer employees than parcel sorting/distribution hub facilities. The Warehouse Complex Alternative would meet all other Project objectives.

Table 6-1 Alternatives to the Proposed Project – Comparison of Environmental Impacts

Environmental Topic	Proposed Project Significance of Impacts After Mitigation	Level of Impact Compared to the Proposed Project		
		No Development Alternative	No Project Alternative	Warehouse Complex Alternative
Aesthetics	Less-than-Significant Impact	Neutral	Similar	Similar
Agriculture	Significant and Unavoidable	Reduced	Similar	Similar
Air Quality	Significant and Unavoidable	Reduced	Reduced	Reduced
Biological Resources	Less-than-Significant Impact	Increased	Similar	Similar
Cultural Resources	Less-than-Significant Impact	Increased	Similar	Similar
Geology and Soils	Less-than-Significant Impact	Increased	Similar	Similar
Greenhouse Gas Emissions	Less-than-Significant Impact	Reduced	Reduced	Reduced
Hazards and Hazardous Materials	Less-than-Significant Impact	Reduced	Similar	Similar
Hydrology and Water Quality	Less-than-Significant Impact	Increased	Similar	Similar
Land Use and Planning	Significant and Unavoidable	Reduced	Reduced	Similar
Noise	Less-then-Significant Impact	Reduced	Reduced	Reduced
Population and Housing	Less-than-Significant Impact	Reduced	Similar	Similar
Public Services	Less-than-Significant Impact	Reduced	Reduced	Similar
Transportation and Traffic	Significant and Unavoidable	Reduced	Reduced	Reduced
Utilities Service and Systems	Less-than-Significant Impact	Reduced	Reduced	Increased
Ability to Meet the Basic Objectives of the Project				
Objective A: To develop an underutilized property of more than 70 acres with a parcel delivery services hub facility that will modernize and streamline parcel delivery logistics in the Inland Empire area.		No	No	No
Objective B: To provide a viable reuse plan for former agricultural property that maximizes feasible development of the site so that the property continues to be economically productive when agricultural activities cease.		No	No	Yes
Objective C: To diversify the City of Chino economy by developing a large property with an employment-generating land use with long-term economic viability.		No	No	Yes, but less effectively than the Project

Environmental Topic	Proposed Project Significance of Impacts After Mitigation	Level of Impact Compared to the Proposed Project		
		No Development Alternative	No Project Alternative	Warehouse Complex Alternative
Objective D: To create an employment-generating business in the City of Chino thereby reducing the need for members of the local workforce to commute outside the area for employment.		No	No	Yes, but less effectively than the Project
Objective E: To develop a project in close proximity to regional transportation routes, including designated truck routes, to minimize traffic congestion on surface streets, reduce vehicle miles traveled (VMT), and minimize concomitant air pollution emissions from vehicle sources.		No	No	Yes
Objective F: To develop project with an architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.		No	Yes	Yes
Objective G: To develop a property that has access to existing, available infrastructure.		No	Yes	Yes
Objective H: To add an industrial use in the City of Chino that will add to the diversity of uses already present in the City.		No	No	No

7.0 REFERENCES

7.1 PERSONS INVOLVED IN THE PREPARATION OF THIS EIR

7.1.1 CITY OF CHINO COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION

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7.2 DOCUMENTS INCORPORATED BY REFERENCE IN THIS EIR

The following reports, studies, and supporting documentation were used in the preparation of this EIR and are incorporated by reference within this EIR. A copy of the following reports, studies, and supporting documentation is a matter of public record and is generally available to the public at the location listed.

Chino, City of. 2003. *The Preserve Specific Plan Final EIR.* March 2003. Available on-line at: http://cityofchino.hosted.civiclive.com/city_hall/departments/community_development/planning/plans/the_preserve_. Accessed November 8, 2018.

Chino, City of. 2010a. *City of Chino General Plan.* July 2010. Available on-line at: http://cityofchino.hosted.civiclive.com/city_hall/departments/community_development/planning/plans/general. Accessed November 8, 2018.

Chino, City of. 2010b. *City of Chino General Plan EIR.* Available on-line at: http://cityofchino.hosted.civiclive.com/city_hall/departments/community_development/planning/plans/general. Accessed November 8, 2018.

Chino, City of. 2013a. *City of Chino Climate Action Plan.* November 19, 2013. Available on-line at: https://www.cityofchino.org/city_hall/departments/community_development/planning/plans/climate_action_plan. Accessed November 8, 2018.

Chino, City of. 2013b. *City of Chino 2013-2021 Housing Element.* September 2013. Available on-line at: http://cityofchino.hosted.civiclive.com/UserFiles/Servers/Server_10382578/File/City%20Hall/Plans/General/Final%20Draft%202013%20Chino%20HE.pdf. Accessed November 8, 2018.

Chino, City of. 2016a. *The Preserve Specific Plan.* September 2016. Available on-line at: https://www.cityofchino.org/city_hall/departments/community_development/planning/plans/the_preserve_. Accessed November 8, 2018.

Chino, City of. 2016b. *2015 Urban Water Management Plan*. September 2016. Available on-line at: https://wuedata.water.ca.gov/public/uwmp_attachments/7096653580/2015%20UWMP_final.pdf. Accessed January 17, 2019.

Chino, City of. 2017a. *City of Chino Williamson Act Map.* Available on-line at: https://www.cityofchino.org/UserFiles/Servers/Server_10382578/File/Business/Zoning%20&%20Land%20Use/Zoning/Maps/Williamson%20Act%20Map.pdf. Accessed November 8, 2018.

Chino, City of. 2017b. *City of Chino Zoning Map.* Available on-line at: https://www.cityofchino.org/UserFiles/Servers/Server_10382578/File/Business/Zoning%20&%20Land%20Use/Zoning/Maps/Zoning%20Map.pdf. Accessed November 8, 2018.

Chino, City of. 2017c. *City of Chino General Plan Map.* Revised September 18, 2017. Available on-line at:https://www.cityofchino.org/UserFiles/Servers/Server_10382578/File/Business/Zoning%20&%20Land%20Use/Zoning/Maps/General%20Plan%20Map.pdf. Accessed November 8, 2018.

Chino, City of. 2018. *City of Chino Municipal Code.* Available on-line at: https://library.municode.com/ca/chino/codes/code_of_ordinances. Accessed November 8, 2018.

Eastvale, City of. 2015. *City of Eastvale General Plan*. Revised June 19, 2015. Available on-line at: http://www.eastvaleca.gov/home/showdocument?id=3898. Accessed May 3, 2018.

Ontario, City of. 2009. *The Ontario Plan Final Environmental Impact Report*. April 2009. Available on-line at: http://www.ontarioplan.org/environmental-impact-report/. Accessed October 4, 2017.

Ontario, City of. 2011. *Ontario International Airport Land Use Compatibility Plan*. February 2011. Available on-line at: http://www.ontarioplan.org/alucp-for-ontario-international-airport//. Accessed October 4, 2017.

Ontario, City of. 2016. *City of Ontario Zoning Map*. Revised March 21, 2017. Available on-line at: http://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Maps/zoningc36x48_10_3_1_04042017.pdf. Accessed October 4, 2017.

Ontario, City of. 2018. *The Ontario Plan Land Use Plan.* Revised March 6, 2018. Available on-line at: http://www.ontarioplan.org/wp-content/uploads/sites/4/2015/09/TOPLUP_Map24x3610_1_03140218.pdf. Accessed May 3, 2018.

Ontario, City of. *The Ontario Plan.* "The Policy Plan." Available on-line at: http://www.ontarioplan.org/policy-plan/. Accessed October 9, 2018.

7.3 DOCUMENTS AND WEBSITES CONSULTED

Cited As	Reference
ACHP, 2016	Advisory Council on Historic Preservation, 2016. *The National Historic Preservation Program: Overview*. Amended December 16, 2016. Available on-line at: https://www.achp.gov/sites/default/files/2018-06/nhpa.pdf. Accessed November 8, 2018.
AEP, 2016	Association of Environmental Professionals, 2016. *Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*. October 18, 2016. Available on-line at: https://www.califaep.org/images/climate-change/AEP-2016_Final_White_Paper.pdf. Accessed November 8, 2018.
ALUC, 1991	Airport Land Use Commission, 1991. *Chino Airport Comprehensive Land Use Plan*. November 1991. Available on-line at: http://www.sbcounty.gov/Uploads/lus/Airports/Chino.pdf
BLS, 2018	Bureau of Labor Statistics, 2018. *Local Area Unemployment Statistics.* Available on-line at: https://data.bls.gov/timeseries/LAUMT064014000000006?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true/. Accessed November 8, 2018.
CA Dept. of Finance, 2018	State of California Department of Finance, 2018. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2018 with 2010 Census Benchmark*. May 2018. Available on-line at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed November 8, 2018.
CA Gov. Code § 51200, et seq.	California Legislative Information. *Government Code § 51200.* Available on-line at: https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=51200. Accessed November 8, 2018.
CAB, n.d.	California Architects Board. *Essential Services Buildings Seismic Safety Act.* Available on-line at: http://www.cab.ca.gov/general_information/esbssa/. Accessed November 8, 2018.
CalFire, 2008	California Department of Forestry and Fire Protection, 2008. *SW San Bernardino County Very High Fire Hazard Severity Zones in LRA*. November 13, 2008. Available on-line at: http://frap.fire.ca.gov/webdata/maps/san_bernardino_sw/fhszl_map.62.pdf. Accessed November 8, 2018.

Cited As	Reference
California Natural Resources Agency, 2009	California Natural Resources Agency, 2009. *2009 California Climate Adaptation Strategy*. Available on-line at: http://resources.ca.gov/docs/climate/Statewide_Adaptation_Strategy.pdf. Accessed November 9, 2018.
CalRecycle, 2017	California Department of Resources Recycling and Recovery, 2017. *Mandatory Commercial Recycling*. Available on-line at: https://www.calrecycle.ca.gov/Recycle/Commercial/. Accessed January 17, 2019.
CalRecycle, 2018a	California Department of Resources Recycling and Recovery, 1997. *History of California Solid Waste Law, 1985-1989*. Available on-line at: https://www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989. Accessed November 9, 2018.
CalRecycle, 2018b	California Department of Resources Recycling and Recovery, 1997. *History of California Solid Waste Law, 1990-1994*. Available on-line at: http://www.calrecycle.ca.gov/Laws/Legislation/calhist/1990to1994.htm. Accessed November 9, 2018.
CalRecycle, 2018c	California Department of Resources Recycling and Recovery, 2018c. *Estimated Solid Waste Generation Rates*. Available on-line at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 17, 2019.
CalRecycle, El Sobrante, 2018	California Department of Resources Recycling and Recovery, 2018. *SWIS Facility Detail El Sobrante Landfill*. Available on-line at: https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0217. Accessed November 9, 2018.
Caltrans, 2017	California Department of Transportation, 2017. List of eligible and officially designated State Scenic Highways. Available on-line at: http://www.dot.ca.gov/design/lap/livability/scenic-highways/2017-03DesigandEligible.xlsx. Accessed November 9, 2018.
CARB, 2007	California Air Resources Board, 2007. *California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*. November 16, 2007. Available on-line at: https://www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf. Accessed November 9, 2018.
CARB, 2012	California Air Resources Board, 2012. *Air Quality and Transportation Planning*. Available on-line at: https://www.arb.ca.gov/planning/planning.htm.

Cited As	Reference
CARB, 2014	California Air Resources Board, 2014. *Assembly Bill 32 Overview*. Available on-line at: https://www.arb.ca.gov/cc/ab32/ab32.htm. Accessed November 9, 2018.
CARB, 2015	California Air Resources Board, 2015. *Area Designations Maps / State and National*. Available on-line at: https://arb.ca.gov/desig/adm/adm.htm. Accessed November 9, 2018.
CARB, 2017a	California Air Resources Board, 2017a. *Clean Car Standards – Pavley, Assembly Bill 1493*. January 11, 2017. Available on-line at: https://www.arb.ca.gov/cc/ccms/ccms.htm.
CARB, 2017b	California Air Resources Board, 2017b. *Sustainable Communities.* December 1, 2017. Available on-line at: https://www.arb.ca.gov/cc/sb375/sb375.htm. Accessed November 8, 2018.
CBSC, 2016	California Building Standards Code, 2016. *Guide to Title 24*. Available on-line at: http://www.dgs.ca.gov/dsa/Programs/progCodes/title24.aspx. Accessed November 8, 2018.
CBWM, 2014	Chino Basin Watermaster, 2014. *Chino Basin Boundaries.* Available on-line at: http://cbwm.org/rep_sgma.htm. Accessed January 22, 2019.
CBWM, 2017	Chino Basin Watermaster, 2017. *Chino Basin Optimum Basin Management Program 2016 State of the Basin Report*. June 2017. Available on-line at: http://www.cbwm.org/docs/engdocs/State_of_the_Basin_Reports/SOB%202016/2016%20State%20of%20the%20Basin%20Report.pdf. Accessed November 9, 2018.
CCC, n.d.	California Climate Change. *California Climate Change Executive Orders*. Available on-line at: http://www.climatechange.ca.gov/state/executive_orders.html. Accessed November 8, 2018.
CCC, n.d.	California Climate Change. *California Climate Change Legislation*. Available on-line at: http://www.climatechange.ca.gov/state/legislation.html. Accessed November 8, 2018.
CCCC, 2006	California Climate Change Center. 2006. *Scenarios of Climate Change in California: An Overview*. February 2006. Available on-line at: https://www.energy.ca.gov/2005publications/CEC-500-2005-186/CEC-500-2005-186-SF.PDF. Accessed November 8, 2018.
CDC, 1997	California Department of Conservation, 1997. *California Agricultural Land Evaluation and Site Assessment Model Instruction Manual*. 1997. Available on-line at: https://www.conservation.ca.gov/dlrp/Documents/lesamodl.pdf. Accessed November 8, 2018.

Cited As	Reference
CDC, 2004	California Department of Conservation, 2004. *A Guide to the Farmland Mapping and Monitoring Program.* 2004. Available on-line at: http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp_guide_2004.pdf. Accessed November 8, 2018.
CDC, 2014	California Department of Conservation, 2014. *Appendix A 2008-2010 County Conversion Tables.* Available on-line at: http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2008-2010/fcr/0810appendix_A.pdf. Accessed November 9, 2018.
CDC, 2015	California Department of Conservation, 2015. *California Farmland Conversion Report 2015*. September 2015. Available on-line at: http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf. Accessed November 8, 2018.
CDC, 2018	California Department of Conservation, 2018. *Land Conservation (Williamson) Act Program Overview*. 2018. Available on-line at: https://www.conservation.ca.gov/dlrp/wa/Pages/wa_overview.aspx. Accessed November 8, 2018.
CDC, n.d.	California Department of Conservation. *California Important Farmland Finder*. Available on-line at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed November 8, 2018.
CDFW, 2017a	California Department of Fish and Wildlife, 2017a. *California Endangered Species Act (CESA) Permits*. Available on-line at: https://www.wildlife.ca.gov/Conservation/CESA Accessed November 8, 2018.
CDFW, 2017b	California Department of Fish and Wildlife, 2017b. *Natural Community Conservation Planning (NCCP)*. Available on-line at: https://www.wildlife.ca.gov/conservation/planning/nccp
CDFW, 2017c	California Department of Fish and Wildlife, 2017c. *Lake and Streambed Alteration Program*. Available on-line at: https://www.wildlife.ca.gov/conservation/lsa
CDFW, 2017d	California Department of Fish and Wildlife, 2017. *California Laws Protecting Native Plants*. Available on-line at: https://www.wildlife.ca.gov/Conservation/Plants/Laws

Cited As	Reference
CEC, 2015	California Energy Commission, 2015. *2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*. June 2015. Available on-line at: http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf. Accessed November 9, 2018.
CGS, n.d.	California Geological Survey. *The Alquist-Priolo Earthquake Fault Zoning Act.* Available on-line at: http://www.conservation.ca.gov/cgs/rghm/ap. Accessed November 8, 2018.
CGS, n.d.	California Geological Survey. *Seismic Hazards Zonation Program.* Available on-line at: https://www.conservation.ca.gov/cgs/Documents/Program-SHP/fact_sheet.pdf. Accessed November 8, 2018.
CGS, n.d.	California Geological Survey. *Natural Hazards Disclosure – Seismic Hazards Zones*. Available on-line at: https://www.conservation.ca.gov/cgs/Pages/Program-SHP/disclosure-of-seismic-hazard-zones.aspx. Accessed November 8, 2018.
CNRA, 2009	California Natural Resources Agency. 2009. *2009 California Climate Adaptation Strategy*. Available on-line at: http://resources.ca.gov/docs/climate/Statewide_Adaptation_Strategy.pdf. Accessed November 8, 2018.
CPD, 2017	Chino Police Department, 2017. *2016 Annual Report*. Available on-line at: http://cityofchino.hosted.civiclive.com/UserFiles/Servers/Server_10382578/File/City%20Hall/Departments/Police/2016%20Annual%20Report.pdf. Accessed November 9, 2018.
CVFD, 2012	Chino Valley Fire District, 2012. *Chino Valley Independent Fire 2012 Master Plan.* July 11, 2012. Available on-line at: http://ca-chinovalleyifd.civicplus.com/DocumentCenter/View/8. Accessed November 8, 2018.
CVFD, 2017	Chino Valley Fire District, 2017. *Annual Report 2017*. Available on-line at: https://www.chinovalleyfire.org/DocumentCenter/View/993/CVFD-2017-Annual-Report. Accessed November 8, 2018.
CVFD, n.d.	Chino Valley Fire District. *Station 63*. Available on-line at: http://www.chinovalleyfire.org/Facilities/Facility/Details/Station-63-3?&centerLat=33.99510879990894&centerLng=-117.66224822995318&zoom=12. Accessed November 8, 2018.

Cited As	Reference
DTSC, n.d.	Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available on-line at: http://www.envirostor.dtsc.ca.gov/public/search.asp?PAGE=9&CMD=search&ocieerp=&business_name=&main_street_number=&main_street_name=&city=&zip=&county=&branch=&status=ACT%2CBKLG%2CCOM%2CCOLUR&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&cleanup_type=&npl=&funding=&reporttype=CORTESE&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&spec_prog=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&display_results=&pub=&hwmp=False&permitted=&pc_permitted=&inspections=&complaints=&censustract=&cesdecile=&ORDERBY=county&next=Next+50. Accessed November 8, 2018.
DWR, 2003	Department of Water Resources, 2003. *Guidebook for Implementation of Senate 610 and Senate Bill 221 of 2001*. October 8, 2003. Available on-line at: http://www.water.ca.gov/pubs/use/sb_610_sb_221_guidebook/guidebook.pdf. Accessed November 9, 2018.
DWR, 2016	Department of Water Resources, 2016. *2015 Urban Water Management Plans Guidebook for Urban Water Suppliers*. March 2016. Available on-line at: http://www.water.ca.gov/urbanwatermanagement/docs/2015/UWMP_Guidebook_Mar_2016_FINAL.pdf. Accessed November 9, 2018.
DWR, 2017	Department of Water Resources, 2017. *Making Water Conservation a California Way of Life Implementing Executive Order B-37-16.* Available on-line at: https://water.ca.gov/LegacyFiles/wateruseefficiency/conservation/docs/20170407_EO_B-37-16_Final_Report.pdf. Accessed November 9, 2018.
EPA, 2009	Environmental Protection Agency, 2009. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*. March 2009. Available on-line at: https://www.epa.gov/sites/production/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf. Accessed November 9, 2018.
EPA, 2017a	Environmental Protection Agency, 2017a. *Summary of the Clean Water Act*. February 7, 2017. Available on-line at: https://www.epa.gov/laws-regulations/summary-clean-water-act.
EPA, 2017b	Environmental Protection Agency, 2017b. *Summary of the Clean Air Act.* Available on-line at: https://www.epa.gov/laws-regulations/summary-clean-air-act.

Cited As	Reference
EPA, 2017c	Environmental Protection Agency, 2017c. *1990 Clean Air Act Amendment Summary: Title I*. Available on-line at: https://www.epa.gov/clean-air-act-overview/1990-clean-air-act-amendment-summary-title-i.
EPA, 2017d	Environmental Protection Agency, 2017d. *1990 Clean Air Act Amendment Summary: Title II*. Available on-line at: https://www.epa.gov/clean-air-act-overview/1990-clean-air-act-amendment-summary-title-ii.
EPA, 2017e	Environmental Protection Agency, 2017e. *Summary of the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)*. Available on-line at: https://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act. Accessed November 8, 2018.
EPA, 2017f	Environmental Protection Agency, 2017f. *Summary of the Resource Conservation and Recovery Act*. Available on-line at: https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act. Accessed November 8, 2018.
EPA, 2017g	Environmental Protection Agency, 2017g. *Summary of the Occupational Safety and Health Act.* Available on-line at: https://www.epa.gov/laws-regulations/summary-occupational-safety-and-health-act. Accessed November 8, 2018.
EPA, 2017h	Environmental Protection Agency, 2017h. *Summary of the Toxic Substances Control Act.* Available on-line at: https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act. Accessed November 8, 2018.
EPA, 2017i	Environmental Protection Agency, 2017i. *Summary of the Noise Control Act.* February 7, 2017. Available on-line at: https://www.epa.gov/laws-regulations/summary-noise-control-act. Accessed November 8, 2018.
EPA, n.d.	Environmental Protection Agency, n.d. *Learn About SmartWay*. Available on-line at: https://www.epa.gov/smartway/learn-about-smartway. Accessed November 8, 2018.
FAA, 2016a	Federal Aviation Administration, 2016a. *Notification of Proposed Construction or Alteration on Airport Part 77*. August 9, 2016. Available on-line at: https://www.faa.gov/airports/central/engineering/part77/. Accessed November 8, 2018.
FEMA, 2008	Federal Emergency Management Agency, 2008. *FEMA Flood Insurance Rate Map No. 06071C9375H*. Available on-line at: https://msc.fema.gov/portal.
FHWA, 2017	Federal Highway Administration, 2017. *Highway Traffic Noise*. Available on-line at: https://www.fhwa.dot.gov/environment/noise/. Accessed November 8, 2018.

Cited As	Reference
FTA, 2006	Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment.* May 2006. Available on-line at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed November 8, 2018.
Google Earth, 2018	Google Earth, 2018. Multiple Dates. Version 7.1.2.2041. Computer Software.
IAPMO, 2018	International Association of Plumbing and Mechanical Officials, 2018. *2016 California Plumbing Code.* July 1, 2018. Available on-line at: http://epubs.iapmo.org/2016/CPC/#p=26. Accessed January 22, 2019.
IEUA, 2018	Inland Empire Utilities Agency, 2018. *Regional Water Recycling Plant No. 5.* Available on-line at: https://www.ieua.org/facilities/rp-5/. Accessed November 8, 2018.
NPS, 2016	National Park Service, 2016. The Native American Graves Protection and Repatriation Act (web site). March 15, 2016. Accessed July 31, 2017. Available on-line at: https://www.nps.gov/archeology/tools/laws/nagpra.htm. Accessed November 8, 2018.
NPS, n.d.	National Park Service. *National Register of Historic Places.* Available on-line at: https://www.nps.gov/subjects/nationalregister/how-to-list-a-property.htm. Accessed November 8, 2018.
OHP, n.d.	Office of Historic Preservation, n.d. California Register of Historical Resources. Available on-line at: http://ohp.parks.ca.gov/?page_id=21238. Accessed July 31, 2017.
OPR, 2005	Office of Planning and Research, 2005. *Tribal Consultation Guidelines – Supplement to General Plan Guidelines.* April 15, 2005. Available on-line at: https://www.parks.ca.gov/pages/22491/files/tribal_consultation_guidelines_vol-4.pdf
OPR, 2015	Office of Planning and Research, 2015. *Discussion Draft Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA.* May 2015. Available on-line at: http://www.opr.ca.gov/docs/DRAFT_AB_52_Technical_Advisory.pdf. Accessed November 8, 2018.
OPR, 2017a	Office of Planning and Research, 2017. *CEQA Appendix G: Environmental Checklist Form.* Available on-line at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjKjOD0_cXeAhVBwMQHHS0FABcQFjAAegQIBBAC&url=http%3A%2F%2Fresources.ca.gov%2Fceqa%2Fdocs%2Fab52%2Ffinal-approved-appendix-G.pdf&usg=AOvVaw3CtDF-5qtGNfniIcv-Ceqx. Accessed November 8, 2018.

Cited As	Reference
OPR, 2017b	Office of Planning and Research. *General Plan Guidelines*. July 31, 2017. Available on-line at: http://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf. Accessed November 8, 2018.
OPR, n.d.	Office of Planning and Research. *CEQA and Climate Change*. Available on-line at: http://opr.ca.gov/ceqa/climate-change.html. Accessed November 8, 2018.
OSHA, 2002	Occupational Safety and Health Administration, 2002. *Hearing Conservation, OSHA 3074*. Available on-line at: https://www.osha.gov/Publications/osha3074.pdf.. Accessed November 8, 2018.
OSHA, n.d.	Occupational Safety and Health Administration. *Transporting Hazardous Materials.* Available on-line at: https://www.osha.gov/SLTC/trucking_industry/transportinghazardousmaterials.html. Accessed November 8, 2018.
RCALUC, 2008	Riverside County Airport Land Use Commission, 2008. *Airport Land Use Compatibility Plan*. Available on-line at: http://www.rcaluc.org/Portals/0/PDFGeneral/plan/newplan/09-%20Vol.%201%20Chino.pdf. Accessed November 8, 2018.
RCDWR, 2018	Riverside County Department of Waste Resources, 2018. *El Sobrante July 2018 July Load Check.* Available on-line at: https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0217/Document Accessed: October 11, 2018.
RCTC, 2011	Riverside County Transportation Commission, 2011. *2011 Riverside County Congestion Management Program*. December 14, 2011. Available on-line at: http://www.rctcdev.info/uploads/media_items/congestionmanagementprogram.original.pdf Accessed November 9, 2018.
San Bernardino County, 2012	San Bernardino County, 2012. *Countywide Integrated Waste Management Plan*. November 2012. Available on-line at: http://cms.sbcounty.gov/Portals/50/solidwaste/SWAT/Engineering/CIWMP%20-%20Five-Year%20Review%20Report%20-%20Nov%202012.pdf?ver=2017-04-21-153351-130. Accessed November 9, 2018.
SANBAG, 2016	San Bernardino Associated Government, 2016. *San Bernardino County Congestion Management Program*. June 2016. Available on-line at: http://www.gosbcta.com/plans-projects/CMP/CMP16-Complete-061416.pdf. Accessed November 9, 2018.

Cited As	Reference
Santa Ana RWQCB, 2016	Santa Ana Regional Water Quality Control Board, 2016. *1995 Water Quality Control Plan for the Santa Ana River Basin (Region 8).* Available on-line at: http://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml
SAWPA, 2014	Santa Ana Watershed Project Authority, 2014. *One Water One Watershed*. Available on-line at: http://www.sawpa.org/wp-content/uploads/2014/01/3.0-Watershed-Setting_tc_11-20-2013_FINAL1.pdf. Accessed November 8, 2018.
SBCDA, 2015	San Bernardino County Department of Agriculture, 2015. *Annual Crop Report 2015.* Available on-line at: http://cms.sbcounty.gov/Portals/13/CropReports/2015CropReport.pdf?ver=2016-10-20-071953-813.
SCAG, 2016	Southern California Association of Governments, 2016a. *2016-2040 RTP/SCS Growth Forecast by Jurisdiction*. Available on-line at: https://www.scag.ca.gov/Documents/2016_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf. Accessed November 8, 2018.
SCAG, 2017a	Southern California Association of Governments, 2017a. *About SCAG*. Available on-line at: http://www.scag.ca.gov/about/Pages/Home.aspx. Accessed November 8, 2018.
SCAG, 2017b	Southern California Association of Governments, 2017b. *Profile of the City of Chino.* Available on-line at: http://www.scag.ca.gov/Documents/Chino.pdf. Accessed November 8, 2018.
SCAQMD, 1976	South Coast Air Quality Management District, 1976. *Rule 402 Nuisance*. Adopted May 7, 1976. Available on-line at: http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf?sfvrsn=4. Accessed November 9, 2018.
SCAQMD, 2015a	South Coast Air Quality Management District, 2015a. *MATES IV Estimated Risk*. Available on-line at: http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b. Accessed November 8, 2018.
SCAQMD, 2015b	South Coast Air Quality Management District, 2015b. *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae*. Sierra Club v. County of Fresno and Friant Ranch LP. Available on-line at: https://www.courts.ca.gov/documents/7-s219783-ac-san-joaquin-valley-unified-air-pollution-control-dist-041315.pdf. Accessed February 18, 2019.

Cited As	Reference
SCAQMD, 2017a	South Coast Air Quality Management District, 2017a. *Final 2016 Air Quality Management Plan.* March 3, 2017. Available on-line at: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15.
SCAQMD, 2017b	South Coast Air Quality Management District, 2017b. *Authority.* Available on-line at: https://www.aqmd.gov/nav/about/authority. Accessed November 8, 2018.
Southern California Earthquake Center, 1999	Southern California Earthquake Center, 1999. *Guidelines for Analyzing and Mitigation Liquefaction Hazards in California.* Available on-line at: https://www.tugraz.at/fileadmin/user_upload/Institute/IAG/Files/33_Liquefaction_Mitigation-DMG_SP117.pdf. Accessed November 9, 2018.
SWRCB, 2013	State Water Resources Control Board, 2013. *Watershed Management*. Available on-line at: http://www.waterboards.ca.gov/water_issues/programs/watershed/. Accessed November 8, 2018.
SWRCB, 2014	State Water Resources Control Board, 2014. *Federal, State and Local Laws, Policy and Regulations*. December 15, 2014. Available on-line at: http://waterboards.ca.gov/water_issues/programs/nps/encyclopedia/0a_laws_policy.shtml. Accessed November 8, 2018.
SWRCB, 2016	State Water Resources Control Board, 2016. *A Compilation of Water Quality Goals 17th Edition.* January 2016. Available on-line at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_goals/docs/wq_goals_text.pdf. Accessed November 8, 2018.
UC Davis, n.d.	University of California, Davis. Soil Web Earth. Available on-line at: http://casoilresource.lawr.ucdavis.edu/soilweb/. Accessed November 9, 2018.
UNFCCC, n.d.	United Nations Framework Convention on Climate Change. *Kyoto Protocol.* Available on-line at: http://unfccc.int/kyoto_protocol/items/2830.php. Accessed November 8, 2018.
UNFCCC, n.d.	United Nations Framework Convention on Climate Change. *The Paris Agreement.* Available on-line at: https://unfccc.int/process/the-paris-agreement/what-is-the-paris-agreement. Accessed November 8, 2018.
University of California, 1978	University of California, 1978. *Storie Index Soil Rating.* Revised December 1978. Available on-line at: http://anrcatalog.ucanr.edu/pdf/3203.pdf. Accessed November 8, 2018.

Cited As	Reference
USCB, 2016	United States Census Bureau, 2016. *QuickFacts - San Bernardino County, California*. Available on-line at https://www.census.gov/quickfacts/table/PST045216/06071,06. Accessed November 9, 2018.
USDA, n.d.	United States Department of Agriculture, n.d. *Web Soil Survey*. Available on-line at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx
USFWS, 2013	United States Fish and Wildlife Service, 2013. *ESA Basics*. January 2013. Available on-line at: https://www.fws.gov/endangered/esa-library/pdf/ESA_basics.pdf
USFWS, 2015	United States Fish and Wildlife Service, 2015. *Migratory Bird Treaty Act*. September 16, 2015. Available on-line at: https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php
USFWS, 2016	United States Fish and Wildlife Service, 2016. *The Bald and Golden Eagle Protection Act*. February 1, 2016. Available on-line at: https://www.fws.gov/midwest/eagle/permits/index.html. Accessed November 8, 2018.

7.4 Documents Appended to this EIR

The following reports, studies, and supporting documentation were used in preparing the Chino Parcel Delivery Facility EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Chino Community Development Department, Planning Division at 13220 Central Avenue Chino, CA 91710.

Appendix A: Initial Study for Chino Parcel Delivery Facility, Notice of Preparation, and Written Comments

Appendix B: T&B Planning. 2017. *Agricultural Resources Assessment for the Chino Parcel Delivery Facility*. October 4, 2017.

Appendix C1: Urban Crossroads, 2018a. *Chino Parcel Delivery Air Quality Impact Analysis*. May 11, 2018.

Appendix C2: Urban Crossroads, 2018b. *Chino Parcel Delivery Mobile Source Health Risk Assessment.* May 11, 2018.

Appendix C3: Urban Crossroads, 2019. *Chino Parcel Delivery Supplemental Air Quality Assessment.* February 19, 2019.

Appendix D: Glen Lukos Associates, Inc. (GLA), 2017. *Biological Technical Report for The Chino Parcel Delivery Service Project*. Revised: September 29, 2017.

Appendix E1: Brian F. Smith and Associates, Inc. (BFSA), 2017. *Phase I Cultural Resources Survey for The Chino Parcel Delivery Project*. Revised: August 24, 2017.

Appendix E2: Brian F. Smith and Associates, Inc. (BFSA), 2017. *Paleontological Resource and Monitoring Assessment for The Proposed Chino Parcel Delivery Project Site*. Revised: August 22, 2017.

Appendix F: Southern California Geotechnical (SCG), 2018. *Geotechnical Investigation Proposed Logistics Building SWC Merrill Avenue and Flight Avenue*. May 7, 2018.

Appendix G: Urban Crossroads, 2018c. *Chino Parcel Delivery Greenhouse Gas Analysis*. May 11, 2018.

Appendix H1: Anacapa Geoservices Inc. (Anacapa), 2018a. *Phase I Environmental Site Assessment Chino Airport Parcel Delivery Facility*. May 21, 2018.

Appendix H2: Anacapa Geoservices, Inc. (Anacapa), 2018b. *8215 & 8375 Merrill Avenue, Chino, California*. March 15, 2018.

Appendix I1: D&D Engineering, Inc. (D&D), 2018a. *Chino Parcel Delivery Facility Preliminary Hydrology Report*. October 18, 2018.

Appendix I2: D&D Engineering, Inc. (D&D), 2018b. *Water Quality Management Plan for Chino Parcel Delivery Facility*. October 15, 2018.

Appendix J: Urban Crossroads, 2018d. *Chino Parcel Delivery Noise Impact Analysis*. May 4, 2018.

Appendix K: Urban Crossroads, 2018e. *Chino Parcel Delivery Traffic Impact Analysis*. November 13, 2018.

Appendix L: CMC, 2018. *Water Supply Assessment for Chino Parcel Delivery*. December 18, 2018.

Appendix M: Urban Crossroads, 2018f. *Chino Parcel Delivery Energy Analysis*. May 11, 2018.