DRAFT

ENVIRONMENTAL IMPACT REPORT

13131 LOS ANGELES STREET INDUSTRIAL PROJECT

Prepared for

City of Irwindale
5050 North Irwindale Avenue
Irwindale, California 91706

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

April 2020

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(SCH#2019080276)

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LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
µg/m^3	Micrograms per cubic meter
°F	Degrees Fahrenheit
2016 AQMP	2016 Air Quality Management Plan
2016 RTP/SCS	2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy
AAI	All Appropriate Inquiries
AB	Assembly Bill
AC	Acre
ACM	Asbestos-containing materials
ADA	Americans with Disabilities Act
ADT	Average daily traffic
AERMOD	USEPA air toxic dispersion model
AF	Acre feet
AFD	Arcadia Fire Department
amsl	above mean sea level
AP Act	Alquist-Priolo Earthquake Fault Zoning Act
APE	Area of Potential Effects
AQMP	Air Quality Management Plan
ATCM	Airborne toxics control measure
BAT	Best available technologies
BAU	business-as-usual
BLM	Bureau of Land Management
BMPs	Best Management Practices
BP	before present
CA	California
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CADPR	California Department of Parks and Recreation
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CAL OES	California Office of Emergency Services
CalARP	California Accidental Release and Prevention Program
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalRecycle	California Department of Resources Recycling Recovery formerly the California Integrated Waste Management Board
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CBC	County Building Code
CBSC	California Building Standards Code
CC&R	Covenants, Codes, and Restrictions

Acronym	Meaning
CCAA	California Clean Air Act
CCAP	Climate Action Plan 2020
CCR	California Code of Regulations
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
CF_4	tetrafluoromethane
CFCs	Chlorofluorocarbons
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CH_4	Methane
CHP	California Highway Patrol
CHRIS	California Register of Historical Resources
CIWMA	California Integrated Waste Management Act
CIWMP	Countywide Integrated Waste Management Plan
CMP	Congestion Management Program
CMP	Corrugated Metal Pipe
C_{nel}	Community noise equivalent level
CNEL	Community Noise Equivalent Level
CNPSI	California Native Plant Society Inventory
CO	carbon monoxide
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
COHb	carboxyhemoglobin
Cortese List	Hazardous Waste and Substances Site List – Site Cleanup
County	Mendocino County
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resource
CSE	Countywide Siting Element
CSMD	Consolidated Sewer Maintenance District
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CVUSD	Covina Valley Unified School District
CWA	Clean Water Act
CWC	California Water Code
cy	Cubic Yards
dB	Decibel
dBA	Decibel A-Weighted
dbh	Diameter at Breast Height
DEIR	Draft Environmental Impact Report

Acronym	Meaning
DIF	Development Impact Fee
Districts	Sanitation Districts of Los Angeles County
DOC	Department of Conservation
DOT	Department of Transportation
DPM	Diesel particulate matter
DPR	Los Angeles County Department of Parks and Recreation
DPW	Department of Public Works
DTSC	California Department of Toxic Substances Control
DUSD	Duarte Unified School District
DWR	Department of Water Resources
EIR	Environmental Impact Report
EMFAC	EMission FACtor model
EO	Executive Order
EPA	Environmental Protection Agency
EPS	Emissions Performance Standard
ESA	Endangered Species Act
ESA	Environmental Site Assessment
EV	Electric vehicle
FAAQS	Federal ambient air quality standards
FAR	floor to area ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FTA	Federal Transit Administration
GHG	Greenhouse gas
GLO	General Land Office
GP	General Plan
GWP	global warming potential
H_2O	water
Habitat Authority	Puente Hills Habitat Preservation Authority
HCM	Highway Capacity Manual
HEPA	High-efficiency particulate air
HFCs	hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HMTA	Hazardous Materials Transportation Act
HRA	Health Risk Assessment
HSWA	Hazardous and Solid Waste Amendments
H.G.L.	Hydraulic Grade Line
I-	Interstate
I-10	Interstate 10
I-210/SR-210	Interstate/State Route 210
I-605	Interstate 605
IBC	International Building Code

Acronym	Meaning
IPCC	Intergovernmental Panel on Climate Change
IPD	Irwindale Police Department
ISO	Independent System Operator
ITE	Institute of Transportation Engineers
JOS	Joint Outfall System
KOA	KOA Corporation
kv	Kilovolt
L_2	Mean noise levels occurring 2 percent of the time
L_{25}	Mean noise levels occurring 25 percent of the time
L_{50}	Mean noise levels occurring 50 percent of the time
L_8	Mean noise levels occurring 8 percent of the time
LARWQCB	Los Angeles Regional Water Quality Control Board
LCFS	Low Carbon Fuel Standard
L_{dn}	Day-Night Average Noise Level
LDR	Land Disposal Restrictions
LED	light emitting diode
L_{eq}	Equivalent sound level for the total energy (average observed for one hour)
LID	Low impact development
L_{max}	Maximum noise level
LOS	level of service
LOS	Level of service
LRA	Local Responsibility Areas
LSTs	Localized significance threshold
M	Magnitude on the Richter Scale
MATES IV	Multiple Air Toxics Exposure Study in the South Coast Air Basin
MBAS	methylene blue activated substances
MBTA	Migratory Bird Treaty Act
MC	Municipal code
MCA	Medieval Climatic Anomaly
Metro	Los Angeles County Metropolitan Transportation Authority
Mg/L	Milligrams per liter
MGD	millions of gallons per day
MLD	Most Likely Descendants
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MND	Mitigated Negative Declaration
MOU	Memorandum of Understanding
MPE	Maximum Probable Earthquake
MPO	Metropolitan Planning Organization
MRF	Material Recovery Facility
MS4s	Municipal separate storm sewer systems
Msl	Mean sea level
MT	metric tons
MUTCD	Manual on Uniform Traffic Control Devices
MVSD	Mountain View School District

Acronym	Meaning
mw	Megawatt
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NFA	No Further Action
NHM	Natural History Museum of Los Angeles County
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NO	nitric oxide
NO_2	Nitrogen dioxide
NOC	Notice of Completion
NOI	Notice of Intent
NOP	Notice of Preparation
NOx	Nitric oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSR	New Source Review
NWIC	North Western Information Center
O&M	Operation and maintenance
O_2	Oxygen
O_3	Ozone
OEHHA	California Office of Environmental Health Hazard Assessment's
OEM	Emergency Management
OES	Office of Emergency Services
OHP	Office of Historic Preservation
O-P	Office Professional
OPR	Office of Planning and Research
O-S	Open Space
OSHA	Occupational Safety and Health Administration
OSY	Operating Safe Yield
Pb	lead
PCBs	polychlorinated biphenyls
PCE	Passenger Car Equivalency
PEIR	Program Environmental Impact Report
PFCs	perfluorocarbons
PM	Particulate matter
PM_{10}	particulate matter 10 micrometers in diameter or less
$PM_{2.5}$	particulate matter 2.5 micrometers in diameter or less
POTWs	publicly owned treatment works
ppb	Parts per billion
ppm	Parts per million
PPV	Peak particle velocity
PRC	Public Resources Code
Project	13131 Los Angeles Street Industrial Project

Acronym	Meaning
PV	photovoltaic
RCP	Regional Comprehensive Plan
RCPG	Regional Comprehensive Plan and Guide
RCRA	Resource Conservation and Recovery Act
RECLAIM	Regional Clean Air Incentives Market
REL	Reference Exposure Level
Risk Reduction Plan	Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles
RMS	Root mean square
ROG	Reactive organic gas
ROW	right-of-way
RPS	Renewables Portfolio Standard
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board, Los Angeles Region
SAAQS	State ambient air quality standards
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Archaeological Information Center
SCE	Southern California Edison
SCS	sustainable communities strategy
SDWA	Safe Drinking Water Act
SEA	Significant Ecological Area
sf	Square-foot
SF_6	sulfur hexafluoride
SGM	Sustainable Groundwater Management
SGMA	Sustainable Groundwater Management Act
SGVCOG	San Gabriel Valley Council of Governments
SGVWC	San Gabriel Valley Water Company
SIP	State Implementation Plan
SJCWRP	San Jose Creek Water Reclamation Plant
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	Sulfur dioxide
SO_4	sulfates
SoCAB	South Coast Air Basin
SoCalGas	Southern California Gas Company
SOx	Sulfur oxides
SPCC	Spill Prevention Control and Countermeasures
SR-60	State Route 60
SRA	Source receptor area
SSC	Species of Special Concern
Strategy	Mobile Source Strategy
Summary Plan	Integrated Waste Management Summary Plan
SUSMP	Standard Urban Storm Water Mitigation Plans

Acronym	Meaning
SWAMP	Surface Water Ambient Monitoring Program
SWDA	Safe Drinking Water Act
SWPPP	Stormwater Pollution Prevention Plan
SWQDv	Storm Water Quality Design Volume
SWRCB	State Water Resource Control Board
T/L	Transmission Lines
TAC	Toxic air contaminant
TCR	Tribal Cultural Resources
TDS	Total dissolved solids
TIA	Transportation Impact Analysis
TPH	Total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
UWMP	Urban Water Management Plan
VCDW	Valley County Water District
VdB	Decibel notation
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle miles traveled
VOC	Volatile organic compounds
Vph	vehicles per hour
WDR	Water Discharge Requirements
WMP	Water Master Plan
WQMP	Water Quality Management Plan
WRP	Water reclamation plants

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EXECUTIVE SUMMARY

This section includes a brief summary of the 13131 Los Angeles Street Industrial Project (Project), including setting, background and project objectives; areas of controversy and issues to be resolved; alternatives to the proposed project; and a summary table, which lists the potential impacts identified in the Draft Environmental Impact Report (DEIR) by topic, along with the corresponding mitigation measures and the level of significance after mitigation.

ES.1 Introduction

This DEIR has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000-21177) and the Guidelines for the Implementation of CEQA (California Administrative Code §§ 15000 et seq.). As described in CEQA Guidelines Section 15121(a), an EIR is a public informational document that assesses the potentially significant environmental impacts of a project, identifies ways to minimize the significant impacts, and describes a reasonable range of alternatives to the Project. CEQA requires that an EIR be prepared by the agency with primary responsibility over the approval of a project (the lead agency). The City of Irwindale is the lead agency for the Proposed Project.

This DEIR evaluates the potential environmental impacts associated with the implementation of the proposed 13131 Los Angeles Street Industrial Project, which includes the construction and operation of a concrete tilt-up industrial/warehouse building (±528,710 gross square feet) with parking, landscaping, and utilities. The City has determined that an EIR is the appropriate CEQA documentation due to the potential for significant environmental impacts that could result from approval of the requested actions and development of the proposed Project. This DEIR evaluates the existing environmental conditions in the area, analyzes potential environmental impacts due to the implementation of the Project, and identifies feasible mitigation measures that could avoid or reduce the magnitude of those impacts. This DEIR provides an analysis and evaluation of on- and off-site environmental impacts resulting from the construction and operation of the Project.

ES.2 Project Location and Setting

The City of Irwindale encompasses approximately 9.6 square miles and is located within the eastern portion of Los Angeles County at the periphery of the greater Los Angeles metropolitan area. The San Gabriel River delineates the northern boundary of the City with the foothills of the nearby San Gabriel Mountains located further north. The City is centrally located within the San Gabriel Valley and is generally bounded on the north by Duarte, on the east by Azusa, on the south by Baldwin Park, and on the west by the cities of Monrovia, Arcadia, and Duarte. Regional access to the City is provided by the Foothill Freeway (I-210) and the San Gabriel River Freeway (I-605).

The proposed Project is located east of the San Gabriel River and Interstate 605 in the western portion of the City of Irwindale. Surrounding the Project site are commercial and industrial buildings (City of Baldwin Park) to the east, Rivergrade Road and the I-605 to the north, an industrial building (SCE Material Supply,

Irwindale Distribution Center) to the west, Los Angeles Street and a gravel quarry (Vulcan Durbin Materials Plant) to the south.

ES.3 Project Background

Initial development of the 24.88-acre project site occurred in 1967 when the California Portland Cement Company, a manufacturer of cement, ready mix concrete, building and construction supplies, and concrete products began operations. From 1967 until 2017, there have been several ownership changes, but the industrial operations have remained essentially the same. Previous occupants include Spancrete of California, United Ready-Mix Concrete, Hanson Spancrete Pacific Inc., the Heidelberg Cement Group and Clark Pacific. This use took advantage of nearby sand and gravel quarries for source material and convenient access to the San Gabriel Freeway for heavy duty truck trips.

The property has been unoccupied since 2017. The current Project proponent, Duke Realty, approached the City in 2018 with plans for an approximately 528,710 SF speculative concrete tilt-up building on the site.

ES.4 Description of Proposed Project

The proposed Project involves the demolition of the existing on-site buildings and ancillary structures for the construction of an approximately 528,710 SF (gross) building, with a 520,524 SF ground floor and 8,456 SF mezzanine. The proposed building would be 47.5 feet tall, with architectural features extending up to 53.5 feet tall. The building would feature forklift ramps and roll-up dock doors on the northern and western sides, respectively.

The proposed Project would include 261 standard vehicle parking spaces, 149 trailer stalls, and 13 bicycle parking stalls. A total of four entryways would be provided for access to the site: two driveways on Los Angeles Street, and two gated driveways along Rivergrade Road. The Project would feature 109,330 SF of landscaping including London plane, chitalpa, and date palms trees along Los Angeles Street. Landscaping around the perimeter of the site would include trees, shrubs, accent plants, and groundcover. The landscaping plan shall be submitted to the planning department for approval prior to the issuance of building permits and shall be implemented prior to occupancy.

The site is located in an area designated Industrial/Business Park by the City of Irwindale General Plan, and zoned M-2 Heavy Manufacturing by the City Municipal Code. The Project proposes development of an industrial warehouse that is compatible with surrounding uses. According to the City's 2008 General Plan, this type of development is usually characterized by "intensive industrial operations that may also include outdoor storage of materials and equipment as an ancillary use." Compatibility with surrounding land uses and conformity with the City Commercial and Industrial Design Guidelines would be established through the City's project review and Site Development Permit. While the proposed warehouse use is consistent with the project site's current M-2 Heavy Manufacturing zoning designation, no specific tenant(s) have been identified to occupy the proposed building.

ES.5 Areas of Controversy/Issues to be Resolved by Lead Agency

Section 15123(b)(2) of the CEQA Guidelines requires that areas of controversy known to the lead agency must be stated in the EIR summary. Issues of interest to the public and public agencies were identified during the 30-day public comment period for the Initial Study and Notice of Preparation. Comments received during this scoping period were considered during the preparation of this EIR. Additionally, comment letters received during the scoping period primarily expressed air quality, greenhouse gas, and traffic concerns. These concerns have been identified as areas of known controversy and are analyzed in Chapter 3.0 of this DEIR. The Initial Study, Notice of Preparation, distribution list, and comments received during the scoping period are included in Appendix A of this DEIR.

ES.6 Alternatives to the Proposed Project

The CEQA Guidelines Section 15126.6 requires consideration and discussion of alternatives to the proposed Project in an EIR. One alternative, a new or reestablished concrete manufacturing use, was considered but rejected from further consideration in this EIR. Two alternatives, including the No Project/No Build Alternative, are reviewed in Chapter 5.0 of this document. Chapter 5.0 summarizes alternatives to the proposed Project that were developed, as well as the No Project/No Build Alternative, as required under CEQA. Chapter 5.0 provides a discussion of the alternatives impact analysis considered in the EIR and compares each impact of the areas of potential environmental effects to the proposed Project pursuant to CEQA.

ES.6.1 Alternative 1 – No Project/No Build

Under Alternative 1, the project site demolition of the 20,000 SF brick and concrete office building, a small mobile office, an approximate 2,883 SF office building, and an approximate 9,618 SF maintenance building would still occur, but the site would remain vacant indefinitely. While the project site was previously occupied by a concrete manufacturing business, it was vacated by that business in 2017. And the proposed warehouse, parking lots, and landscaping would not be constructed on the project site.

The No Project/No Build Alternative would result in the avoidance of environmental impacts relative to the proposed Project. Chapter 5.0 provides a summary of the comparison of the environmental effects of the Project to the alternatives presented in this section, including the No Project/No Build Alternative.

ES.6.2 Alternative 2 – Reduced Intensity

The Reduced Intensity Alternative was identified by the Lead Agency to evaluate the comparative environmental impacts associated with construction of a project with less building square footage. Under this Alternative, a smaller warehouse with similar landscaping would be constructed. The Project's 528,710 gross SF building area would be reduced by 15 percent, which yields a warehouse building of approximately 450,000 gross SF as compared to the proposed Project. The building footprint would remain within the footprint of the proposed Project. Access driveways to the site would remain the same.

ES.6.3 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) indicates that an analysis of alternatives to a project shall identify an Environmentally Superior Alternative among the alternatives evaluated in an EIR. The CEQA Guidelines also state that should it be determined that the No Project Alternative is the Environmentally Superior Alternative, the EIR shall identify another Environmentally Superior Alternative among the remaining alternatives.

As demonstrated in Chapter 5.0 of the DEIR, Alternative 1, the No Project (No Project/No Build) Alternative, would be the environmentally superior alternative, as it would result in no new environmental impacts, would avoid several of the proposed project's impacts and would eliminate the significant and unavoidable impacts identified for the proposed project related to air quality, greenhouse gases, and traffic. However, Alternative 1 would not feasibly attain the basic objectives of the Project.

Alternative 2, Reduced Intensity Project (450,000 SF) is, therefore, an environmentally superior alternative to the proposed Project. This alternative would reduce several of the proposed project's impacts and would meet the basic project objectives, although to a lesser degree when compared with the proposed Project.

ES.7 Summary of Impacts and Mitigation Measures

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
3.1 Air Quality			
The Project would conflict with or obstruct implementation of an air quality plan. • The Project would result in NO_x emissions beyond the SCAQMD regional significance threshold during operations, it could potentially delay the timely attainment of air quality standards and/or AQMP emission reduction.	S	**AQ-1:** Prior to the certificate of occupancy issuance, the Project Applicant shall demonstrate to the satisfaction of the City of Irwindale Community Development Department Manager that the following measures would be implemented during Project operations. These measures shall be enforced and maintained through Covenants, Codes, and Restrictions (CC&Rs), or other means acceptable to the City of Irwindale Community Development Department Manager. • The proposed warehouse shall be constructed with electrical conduits provided to each dock door in order to accommodate future electric charging for trucks to plug-in should future technology allowing trucks to operate partially on electricity become available. • At least five percent of all vehicle parking spaces shall include rough-in of electrical conduit for future EV charging stations. Further, provisions for electrical hookups to plug in any onboard auxiliary equipment shall be provided for Project trucks at each dock door location. Electrical panels shall be appropriately sized to allow for future expanded use. • The majority of all loading/unloading docks and trailer spaces shall be equipped with electrical hookups for trucks with transport refrigeration units (TRUs) or auxiliary power units (APUs). Rough-in of electrical conduits for future hookups shall meet this requirement until a tenant utilizes trucks with TRUs or APUs. Once any tenant utilizing trucks with TRUs or APUs starts to operate, electrical hookups shall be provided. • Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than five minutes; and 3) telephone numbers of the building facilities	Significant and unavoidable.

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
		manager and CARB to report violations. • Locate any check-in points for trucks a minimum of 150 feet inside the Project site to reduce potential for trucks queuing outside of the facility. • All dock doors and truck loading spaces shall be located either on the north side or west side of the building in order to encourage truck traffic within the Project site to be located away from the eastern property line (the property line closest to sensitive receptors) to the extent practical. • The Project site is 205 meters (673 feet) from the nearest sensitive receptors at the nearest residences. Establish a buffer zone of at least 300 meters (800 feet) between truck loading zones/docks and the nearest sensitive receptors to the east. • Restrict overnight parking in the residential communities to the east of the Project. Any lease for the site shall not restrict overnight parking within the Project site where trucks can be stored overnight. • All service equipment (i.e., forklifts) used within the site shall be electric or compressed natural gas-powered (propane). • In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, CARB regulations, and importance of not parking in residential areas. Tenants shall be notified about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel-fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the project vicinity; 4) access to alternative fueling stations proximate to the site that supply compressed natural gas; and 5) the United States Environmental Protection Agency's SmartWay program. • There shall be provisions for preferential parking for carpoolers and vanpools.	

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
The Project would result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard. • The proposed Project would result in emissions exceeding the SCAQMD regional NOx threshold during operations. Therefore, the Proposed Project would have the potential to cause or affect a violation of the ambient air quality standards. • The Proposed Project has the potential to result in a cumulatively considerable net increase of a criteria pollutant (NOx) for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.	S	Refer to mitigation measure **AQ-1** above.	Significant and unavoidable.
The Project would not expose sensitive receptors to substantial pollutant concentrations.	LTS	No mitigation measures required.	LTS
The Project would not result in other emissions adversely affecting a substantial number of people.	NI	No mitigation measures required.	NI
3.2 Cultural Resources			
The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	NI	No mitigation measures required.	NI
The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	PS	**CUL-1:** Prior to issuance of grading permits, the Applicant shall retain a qualified archaeological monitor and, if interested pending conclusion of the tribal resources consultation, a Native American monitor. Monitoring by a qualified archaeologist should be conducted under the supervision of a Los Angeles County Certified archaeologist and, if interested, by a Native American monitor from one of the Gabrieleño groups recognized by the Native American Heritage Commission (NAHC). The monitor shall be present on the Project site during ground-disturbing activities to monitor rough and	LTS

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
		finish grading, excavation, and other ground-disturbing activities in any native soils (i.e. non-previously engineered soils). Because no cultural resources were identified on the Project site, archaeological monitors are not required to be present on a full-time basis but shall spot check ground-disturbing activities to ensure that no cultural resources are impacted during construction activities. The precise timing of monitoring activities shall be consistent with the provisions established in the Monitoring Plan. The Monitoring Plan shall be prepared by a qualified archaeologist and shall be reviewed by the Community Development Manager/City Planner, or designee. The Monitoring Plan should include at a minimum: (1) a list of personnel involved in the monitoring activities; (2) a description of how the monitoring shall occur; (3) a description of the frequency of monitoring (e.g., full-time, part-time, spot checking); (4) a description of what resources may be encountered; (5) a description of circumstances that would result in the halting of work at the project site (e.g., what is considered a "significant" archaeological site); (6) a description of procedures for halting work on site and notification procedures; and (7) a description of monitoring reporting procedures. If any significant historical resources, archaeological resources, tribal cultural resources, or human remains are found during monitoring, work shall be stopped within the immediate vicinity (precise area to be determined by the archaeologist in the field) of the resource until such time as the resource can be evaluated by an archaeologist. If the deposits are culturally significant, adverse effects on the deposits must be avoided, or such effects must be mitigated. Mitigation can include, but is not necessarily limited to: leaving the deposits in place, excavation of the deposit in accordance with a data recovery plan (see CCR Title 4(3) Section 5126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; and an interpretive display of recovered archaeological materials at a local school, museum, or library.	

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
		Upon completion of all monitoring/mitigation activities, the consulting archaeologist shall submit a monitoring report to the Community Development Manager/City Planner, or designee, and to the South-Central Coastal Information Center summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been met.	
The Project could disturb human remains, including those interred outside of formal cemeteries.	PS	**CUL-2:** If human remains of any kind are found during construction, the requirements of CEQA Guidelines Section 15064.5(e) and Assembly Bill 2641 shall be followed. According to these requirements, all construction activities must cease immediately, and the Los Angeles County Coroner and a qualified archaeologist must be notified. The Coroner will examine the remains and determine the next appropriate action based on his or her findings. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the MLD to be consulted regarding treatment and/or reburial of the remains. If an MLD cannot be identified, or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to them, the Native American human remains and associated grave goods shall be buried with appropriate dignity on the property in a location not subject to further subsurface disturbance.	LTS
3.3 Energy			
The Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS	No mitigation measures required.	LTS
The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	No mitigation measures required.	LTS
3.4 Greenhouse Gas Emissions			
The Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	S	**GHG-1**: Prior to the certificate of occupancy issuance, the Project Applicant shall demonstrate to the satisfaction of the City of Irwindale Community Development Department Manager that the following measures would be implemented during Project operations. These measures shall be enforced and maintained through Covenants, Codes, and Restrictions (CC&Rs), or	Significant and unavoidable.

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
		other means acceptable to the City of Irwindale Community Development Department Manager. • Install solar energy arrays on the building roof and/or on the Project site to generate solar energy for the facility sufficient to meet 20% of the anticipated power usage of a typical shell warehouse facility with ancillary office. • Employ the use of light-colored (Portland cement concrete) paving and roofing materials. • Utilize only Energy Star heating, cooling, and lighting devices and appliances. • Employ the use of electric or alternatively-fueled sweeper with HEPA filters.	
The Project would not conflict any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	NI	No mitigation measures required.	NI
3.5 Hazards and Hazardous Materials			
The Project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	PS	**HAZ-1:** If applicable, the Project applicant shall prepare and implement a Hazardous Materials Business Plan (HMBP) in accordance with the requirements of the Los Angeles County Fire Department Health Hazardous Materials Management Division, which is the Certified Unified Program Agency (CUPA) for Los Angeles County. The HMBP shall include a hazardous material inventory, emergency response procedures, training program information, and basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of at the proposed Project site, and procedures for handling and disposing of unanticipated hazardous materials encountered during construction. The HMBP shall include an inventory of the hazardous waste generated on site and would specify procedures for proper disposal. Any accidental release of small quantities of hazardous materials shall be promptly contained and abated in accordance with applicable regulatory requirements and reported to the County Health Hazardous Materials Division. Implementation of the	LTS

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
		HMBP for the Project would ensure that minor spills or releases of hazardous materials would not pose a significant risk to the public or the environment.	
The Project could 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.	PS	Refer to mitigation measure **HAZ-1** above.	LTS
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.	LTS	No mitigation measures required.	LTS
The Project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment.	NI	No mitigation measures required.	NI
The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	No mitigation measures required.	LTS
3.6 Hydrology and Water Quality			
The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	LTS	No mitigation measures required.	LTS
The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS	No mitigation measures required.	LTS

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: a. result in substantial erosion or siltation on- or off-site; b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; c. create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; d. impede or redirect flood flows.	LTS	No mitigation measures required.	LTS
The Project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.	LTS	No mitigation measures required.	LTS
The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTS	No mitigation measures required.	LTS
3.7 Land Use and Planning			
The Project would not physically divide an established community.	NI	No mitigation measures required.	NI
The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	No mitigation measures required.	LTS
3.8 Noise			
The Project would not generate a substantial temporary or permanent increase in ambient noise	LTS	No mitigation measures required.	LTS

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.			
The Project would not generate excessive groundborne vibration or groundborne noise levels.	LTS	No mitigation measures required.	LTS
The Project is not located within two miles of a private airstrip or airport and would not result in a safety hazard to people residing or working in the project area.	NI	No mitigation measures required.	NI
3.9 Transportation			
	Transit System – NI	No mitigation measures required.	NI
	Bicycle and Pedestrian Facilities - NI	No mitigation measures required.	NI
	Roadway System - PS	**TRANS-1:** A Construction Traffic Management Plan and Truck Haul Route Program shall be prepared for City Traffic Engineer or designee approval to address how the Project will minimize congestion on streets and freeways during the construction period. The Plan/Program will be made available for review by Caltrans.	LTS
		TRANS-2: The Project shall provide a T-Intersection traffic signal at the main Project driveway on Los Angeles Street. The City Engineer shall make the final determination as to need and timing of the traffic signal based on traffic signal warrants.	LTS
		TRANS-3: Project access and internal circulation shall be designed to assure that all tenants of the Project have access to at least one Project driveway at Los Angeles Street and Rivergrade Road for ingress and egress.	LTS

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
The Project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. • The Project would create significant traffic impacts at two study intersections under future with-Project conditions. • I-605 Southbound Ramps/Los Angeles Street • I-605 Northbound Ramps/Los Angeles Street • The Project would contribute to cumulatively significant ramp queue impacts at the I-605 southbound off-ramp at Lower Azusa Road. • The Project would contribute to cumulatively significant impacts at mainline freeway segments		**TRANS-4:** Prior to the issuance of building permits, the project applicant shall pay the Project's fair share amount for improvements at two study intersections under future with-Project conditions: • I-605 Southbound Ramps/Los Angeles Street • I-605 Northbound Ramps/Los Angeles Street Improvements will include the addition of lanes to the freeway off-ramps at both locations and will require widening of the off-ramp facilities. At the southbound off-ramp location, the recommended mitigation measure is an added left-turn lane at the ramp approach. At the northbound off-ramp location, the recommended mitigation measure is an added right-turn lane at the ramp approach.	LTS

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
Cumulative Level Impact	S	The Project would contribute to significant cumulative impacts at six freeway mainline segments and three diverging/merging areas, per Caltrans traffic impact study guidelines and deficient LOS values. It is not within the jurisdictional authority of purview of the Lead Agency or Applicant to adopt, implement, or enforce mitigation measures requiring the construction of improvements by Caltrans, or upon facilities within Caltrans jurisdiction. As such, there are no feasible mitigation measures that will reduce cumulative mainline freeway impacts below significance thresholds. Traditional funding mechanisms used to improve mainline freeway impacts include Los Angeles County's Measure M revenue for transportation, state and federal gas tax, and formula distributions from vehicle registration fees. Future employees/patrons of the Project contribute indirectly to freeway improvements through these sources. However, the Project's contribution to cumulative-level impacts associated with mainline freeway impacts at six is considered significant and unavoidable. No mitigation measures are available.	Significant and unavoidable (mainline freeway segments and merging/diverging areas)
The Project would not conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b).	NI	No mitigation measures required.	NI
The Project would not substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment.	NI	No mitigation measures required.	NI
3.10 Tribal Cultural Resources			
The Project could 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	PS	Refer to mitigation measures **CUL-1** and **CUL-2** above.	LTS

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
defined in Public Resources Code Section 5020.1(k), or • A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.			
3.11 Utilities and Service Systems			
The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm drainage electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects.	LTS	No mitigation measures required.	LTS
The Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	No mitigation measures required.	LTS
The Project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	LTS	No mitigation measures required.	LTS
The Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	LTS	No mitigation measures required.	LTS

Table ES-1. Summary of Environmental Impacts and Mitigation Measures

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	LTS	No mitigation measures required.	LTS

Note: The second column of the table indicates the level of significance prior to mitigation. An impact denoted with an (S) is significant; (PS) potentially significant; (LTS) less than significant; and (NI) no impact.

Table ES-2. Other Environmental Effects Found Not to be Significant (Appendix A - Initial Study)

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
Aesthetics The vacant site is largely unpaved and has been highly disturbed through decades of industrial manufacturing and heavy truck usage. There are no public, state scenic highways, or scenic vistas within the vicinity of the Project site. A lighting plan will be submitted to the City and the building design will fully comply with the City of Irwindale Commercial and Industrial Design Guidelines.	LTS	No mitigation measures required.	LTS
Agriculture and Forestry Resources The Proposed Project site is zoned as M-2 Heavy Manufacturing by the City and is designated in the General Plan as Industrial/Business Park. It is not zoned for agricultural use, nor is it under a Williamson Act contract.	NI	No mitigation measures required.	NI
Biological Resources The site is currently developed and does not contain habitat for sensitive biological resources, wetlands, or waters of the US. The Project would not conflict with any habitat conservation plans.	LTS	No mitigation measures required.	LTS

Table ES-2. Other Environmental Effects Found Not to be Significant (Appendix A - Initial Study)

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
Geology and Soils The proposed development is not at risk for landslides, liquefaction, soil erosion, settlement and/or slippage. The site is not located within an Alquist-Priolo Earthquake Fault Zone. The Project is not anticipated to impact paleontological resources.	LTS	No mitigation measures required.	LTS
Mineral Resources The Project site has no known mineral resources of value to the region and residents of the City. There is no loss of availability of any locally important mineral resource because the site is not designated as a mineral resource area.	NI	No mitigation measures required.	NI
Population and Housing The Project would not result in growth that was not already anticipated by the City of Irwindale General Plan. The Proposed Project would not substantially displace existing housing and would not require additional housing construction.	LTS	No mitigation measures required.	LTS
Public Services It is anticipated the Proposed Project would be adequately served by the City's public services during the construction and operational phases. The Project is not expected to generate significant need for additional fire and police protection, nor additional schools, parks, or other public facilities.	LTS	No mitigation measures required.	LTS
Recreation The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	NI	No mitigation measures required.	NI
Wildfire The Project is not located within or near a very high fire hazard severity zone. The site is located within a heavily	NI	No mitigation measures required.	NI

Table ES-2. Other Environmental Effects Found Not to be Significant (Appendix A - Initial Study)

Potential Environmental Impacts	Significance Determination	Mitigation Measures	Level of Significance After Mitigation
industrialized area and is not in the immediate vicinity of any natural or wildlife areas. Access to the Proposed Project is planned at multiple driveway locations on Los Angeles Street and at Rivergrade Road, thereby facilitating emergency response and evacuation, if necessary.			

Note: The second column of the table indicates the level of significance prior to mitigation. An impact denoted with an (S) is significant; (PS) potentially significant; (LTS) less than significant; and (NI) no impact.

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1.0 INTRODUCTION

This Draft Environmental Impact Report (DEIR) evaluates the potential environmental impacts associated with the implementation of the proposed 13131 Los Angeles Street Industrial Project (Project), which includes the construction and operation of a concrete tilt-up industrial/warehouse building (±528,710 gross square feet) with parking, landscaping, and utilities.

1.1 Purpose and Use of the EIR

This DEIR was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000-21177) and the Guidelines for the Implementation of CEQA (California Administrative Code §§ 15000 et seq.). As described in CEQA Guidelines Section 15121(a), an EIR is a public informational document that assesses the potentially significant environmental impacts of a project, identifies ways to minimize the significant impacts, and describes a reasonable range of alternatives to the project. CEQA requires that an EIR be prepared by the agency with primary responsibility over the approval of a project (the lead agency).

The City of Irwindale is the lead agency for the Proposed Project. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development, where feasible, and are obligated to balance a variety of public objectives including economic, environmental, and social factors in their decision-making. The City has determined that an EIR is the appropriate CEQA documentation due to the potential for significant environmental impacts that could result from approval of the requested actions and development of the Proposed Project. This Draft EIR evaluates the existing environmental conditions in the area, analyzes potential environmental impacts due to the implementation of the Project, and identifies feasible mitigation measures that could avoid or reduce the magnitude of those impacts. This EIR provides an analysis and evaluation of on- and off-site environmental impacts resulting from the construction and operation of the Project.

1.2 Responsible and Trustee Agencies

For the purpose of CEQA, the term *responsible agency* includes public agencies other than the lead agency that may have discretionary approval or permit authority associated with the Project. The term *trustee agency* means a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of California. Interested agencies may have a general interest in the proposal with respect to issues germane to their organization. Responsible, trustee, or interested agencies with direct or indirect interest in the project include, but may not be limited to the following:

- California Department of Conservation
- California Department of Transportation, District 7
- Native American Heritage Commission
- Los Angeles Regional Water Quality Control Board, Region 4
- South Coast Air Quality Management District
- State Water Resources Control Board

This EIR may also be used by other public agencies to issue approvals and permits related to the Project.

1.3 Type of Document

CEQA) and the CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR is for a specific development project with defined parameters. As such, this EIR is a "project" EIR. Project EIRs are defined by CEQA Guidelines (Section 15161) as:

> "The most common type of EIR examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation."

1.4 Intended Uses of the EIR

This Draft EIR is intended to evaluate the environmental impacts of the 13131 Los Angeles Street Project. This EIR in its final form will be used by the City of Irwindale in considering approval of the proposed project. In accordance with CEQA Guidelines Section 15126, the EIR will be used as the primary environmental document in consideration of any subsequent planning and permitting actions associated with the Project, to the extent such actions require CEQA compliance, and as otherwise permitted under applicable law.

1.5 Organization of the Draft EIR

The EIR is organized as follows:

The **Executive Summary** provides summary information on the Project location and setting, characteristics areas of controversy and issues to be resolved, project alternatives, and summary of impacts and mitigation measures.

Chapter 1.0 Introduction. This chapter provides general background on the Project; identifies the purpose and need for action including the project objectives; describes the roles of the City of Irwindale and other agencies having discretionary approval, and authorities regulating various aspects of the Project; and summarizes the public involvement process for the Project.

Chapter 2.0 Project Description. This chapter describes the Project location and setting, background, purpose and objectives, characteristics, design features, timing and other topics.

Chapter 3.0 Environmental Impact Analysis. This chapter describes the regulatory setting, environment setting (existing conditions), and impact analysis approach for each environmental resource or topic. Each topical section also contains analysis and assessment of impacts (direct, indirect, and cumulative) of the proposed Project. Other known or potentially related area projects are identified for purposes of analysis of cumulative impacts at the outset of this chapter.

Chapter 4.0 Other Environmental Considerations. This chapter describes other aspects of compliance with CEQA procedures, including a description of significant and unavoidable adverse impacts, effects found not to be significant, any significant irreversible environmental changes, and discussion of potential growth-inducing impacts.

Chapter 5.0 Alternatives. This section identifies any alternatives that were considered but not analyzed in detail. This chapter presents a comparison of alternatives including the proposed Project, and identifies an the Environmentally Superior Alternative pursuant to CEQA requirements (CEQA 15126.6(e)(2)).

Chapter 6.0 List of Preparers and Persons Consulted. This chapter provides a list of preparers, including City of Irwindale and consultants. This chapter also identifies the persons, groups, agencies and other governmental bodies that were consulted or that contributed to the preparation of the EIR and lists agencies, organizations, and persons to whom the EIR will be sent or has been sent.

Chapter 7.0 References. This chapter provides the references used in preparing the EIR.

Appendices contain information that supplements or supports the analyses in the body of the EIR.

1.6 Environmental Review Process

The review and certification process for the EIR will involve the following general procedural steps:

1.6.1 Notice of Preparation

In accordance with CEQA Guidelines Section 15082, the City prepared a Notice of Preparation (NOP) of an EIR for the Project that was distributed to responsible agencies and the public for a 30-day comment period, beginning on August 14, 2019, and concluding on September 13, 2019. A public scoping meeting was held on August 26, 2019 at the Irwindale Community Center in order to receive comments and input from the public as to the scope and content of the EIR. City of Irwindale staff, the City's environmental consultant, and Project applicant attended the meeting. A total of four (4) members of the public attended. During the NOP review period the City received five (5) agency comment letters. Public and agency comments were considered during preparation of the EIR. The NOP and comments received from interested parties and agencies are presented in Appendix A**.** Written comments from agencies are summarized below.:

Interested Party/Agency	Date	Summary of Comment(s)
Caltrans	09/11/2019	• Include a Traffic Impact Analysis (TIA) that analyzes the Project's impact on the State Highway System and added traffic volumes to on/off-ramps. • Highway Capacity Manual (HCM) methodology should be used when assessing Project impacts on the State Highway System. • A Construction Traffic Management Plan and Truck Haul Route Program should be included. • The City should develop a verifiable performance-based Vehicle Miles Travelled (VMT) criteria.

Interested Party/Agency	Date	Summary of Comment(s)
California Air Resources Board (CARB)	09/12/2019	• Concern with air pollution and health risk impacts on neighboring communities and schools. • The Project should not adversely impact neighboring disadvantaged communities. • The air quality analysis of the DEIR and associated health risk assessment (HRA) should include a conservative percentage of trucks with transportation refrigeration units. • Address the potential for health risks for existing residences near the Project site during construction. Evaluate existing baseline, future baseline, and future year with Project scenarios. • Project final design should consider zero-emissions technologies.
Native American Heritage Commission (NAHC)	09/10/2019	• Consult with California Native Americans that are traditionally and culturally affiliated with the geographic area of the proposed Project. • Recommends an archaeological records search with the appropriate California Historical Resources Information System (CHRIS) Center. • Recommends contacting the NAHC for a Sacred Lands File search and list of appropriate tribes for consultation. • The mitigation and monitoring reporting program should include provisions for identification, evaluation, treatment, and disposition of archaeological or tribal cultural resources.
Sanitation Districts of Los Angeles County (LACSD)	09/11/2019	• Advises the developer of Districts intent to provide wastewater service up to legally permittable levels and informs the developer of the currently existing capacity. • Project developers would be required to pay a Connection Fee and may need to obtain a permit for Industrial Wastewater Discharge.
South Coast Air Quality Management District (SCAQMD)	09/10/2019	• Requests the Lead Agency quantify criteria pollutant emissions and compare the results to SCAQMD's CEQA regional pollutant emissions significance thresholds to determine air quality impacts. • Identify any potential adverse air quality impacts that could occur from all phases of the Project and all air pollutant sources related to the Project. • Perform a mobile source HRA. • Cumulative impacts from warehouse projects in communities with existing industrial sources should be addressed.

1.6.2 Draft EIR

This Draft EIR contains a description of the project, description of the environmental setting, identification of project impacts, and feasible mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the Draft EIR, the Notice of Completion (NOC) will be filed with the California Office of Planning and Research to begin the 45-day public review period (Public Resources Code Section 21161).

1.6.3 Public Notice/Public Review

Concurrent with the NOC, the County will provide public notice of the availability of the Draft EIR for public review and invite comment from the general public, agencies, organizations, and other interested parties. The public review and comment period is 45 days. Notice of the time and location of any public meetings and hearings will be published prior to the meeting/hearing in accordance with applicable law.

All comments or questions regarding the Draft EIR should be addressed to the City contact identified in Section 1.7 that follows.

1.6.4 Response to Comments/Final EIR

Following the public review period, a Final EIR (FEIR) will be prepared. The FEIR will respond to all comments received during the public review period that raise significant environmental concerns and may contain revisions to the Draft EIR, if necessary. The Draft EIR, as revised and combined with responses to comments, will constitute the Final EIR.

1.6.5 Certification of the EIR/Project Consideration

The City of Irwindale Planning Commission will review and make recommendation to the City Council regarding certification of the EIR and action on the proposed project. If the City finds that the FEIR is "adequate and complete," the County may certify the FEIR. Upon review and consideration of the FEIR, the City may take action to approve, revise, or reject the proposed project. Any decision to approve the project would be accompanied by written findings in accordance with CEQA Guidelines Section 15091 and Section 15093. A Mitigation Monitoring and Reporting Program (MMRP), as described below, must also be adopted for mitigation measures that have been incorporated into or imposed on the project to reduce or avoid significant effects on the environment. The MMRP will be designed to ensure that these measures are enforceable and carried out during project implementation.

1.6.6 Mitigation Monitoring and Reporting Program

CEQA Section 21081.6(a) requires lead agencies to adopt an MMRP to describe measures that will be adopted and made a condition of project approval in order to mitigate or avoid significant effects on the environment. The specific reporting or monitoring program required by CEQA is not required to be included in the EIR; however, it must be presented to the Board of Supervisors for adoption.

Throughout the EIR, mitigation measures have been clearly identified and presented in language that will facilitate implementation of the MMRP. Any mitigation measures adopted by the City as conditions for approval of the project will be included in an MMRP to ensure enforceability and verify compliance.

1.7 Contact Persons and Phone Numbers

Lead Agency Name and Address:	City of Irwindale, 5050 North Irwindale Avenue Irwindale, CA 91706
Contact Person and Phone Number:	Marilyn Simpson, Community Development Manager/City Planner (626) 430-2209

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2.0 PROJECT DESCRIPTION

2.1 Project Overview

This Draft Environmental Impact Report (EIR) has been prepared to evaluate and inform the general public about the potential environmental effects that may result from the proposed 13131 Los Angeles Street Industrial Project (Project) in the City of Irwindale. The Project involves the demolition of the existing on-site buildings and structures and the construction of a stand-alone concrete tilt-up building located at 13131 Los Angeles Street (APN: 8353-020-007). The 24.88-acre property is currently occupied by three office buildings totaling 32,501 square feet (SF). The land is zoned M-2 (Heavy Manufacturing), designated "Industrial/Business Park" by the City's General Plan, and subject to the Irwindale Commercial & Industrial Design Guidelines.

The proposed stand-alone concrete tilt-up building (±528,710 SF) would be 47.5 feet tall, with architectural features extending up to 53.5 feet tall. The building would feature forklift ramps and roll-up dock doors on the northern and western sides, respectively. The proposed Project would include 80 trailer parking spaces on the southeast corner of the site, 70 trailer parking spaces along the western end of the site, and 261 standard vehicle parking spaces around the perimeter of the building. On-site utility extensions and landscaping would be provided.

The Project Proponent is pursuing the Project on a speculative basis, meaning that the proposed building's future tenants are not yet identified. Project construction is anticipated to begin in Spring/Summer 2020 if approved.

2.2 Project Location and Setting

The City of Irwindale contains approximately 9.6 square miles and is located within the eastern portion of Los Angeles County at the periphery of the greater Los Angeles metropolitan area. The San Gabriel River delineates the northern boundary of the City with the foothills of the nearby San Gabriel Mountains located further north. The City is centrally located within the San Gabriel Valley and is generally bounded on the north by Duarte, on the east by Azusa, on the south by Baldwin Park, and on the west by the cities of Monrovia, Arcadia, and Duarte. Regional access to the City is provided by the Foothill Freeway (I-210) and the San Gabriel River Freeway (I-605).

The majority of the City's population and development is located in that portion of the City that is east of the San Gabriel River. The City has over 800 businesses, a resident population of just over 1,400, and a daytime population of over 30,000 workers and patrons (City of Irwindale 2008). Of the City's 9.6 square-mile land area, Irwindale has less land devoted to typical urban land uses (residential, commercial, and industrial development) when compared to its neighboring communities. Land uses found in the western portion of the City are dominated by large-scale quarry operations with limited areas of more traditional urban development. Much of the City's land is encompassed by the Santa Fe Dam recreational area and other flood control improvements, and an almost equal proportion is devoted to sand and gravel extraction operations. Contributing to Irwindale's image as an industrial community is the presence of large-scale mining operations and large number of open yard businesses found in the City. The majority

of the developable land in the City is zoned M-2, including many of the City's quarry sites and landfills which date back around 100 years.[1]

The proposed Project is located east of the San Gabriel River and Interstate 605 in the western portion of the City of Irwindale (Figure 2.0-1. Regional Project Location). Surrounding the Project site are commercial and industrial buildings (City of Baldwin Park) to the east, Rivergrade Road and the San Gabriel River Freeway (I-605) to the north, an industrial building (SCE Material Supply, Irwindale Distribution Center) to the west, Los Angeles Street and a gravel quarry (Vulcan Durbin Materials Plant) to the south (Figure 2.0-2. Project Location).

2.3 Project Background

Initial development of the 24.88-acre project site occurred in 1967 when the California Portland Cement Company, a manufacturer of cement, ready mix concrete, building and construction supplies, and concrete products began operations. From 1967 until 2017, there have been several ownership changes, but the industrial operations have remained essentially the same. Previous occupants include Spancrete of California, United Ready-Mix Concrete, Hanson Spancrete Pacific Inc., the Heidelberg Cement Group and Clark Pacific. This use took advantage of nearby sand and gravel quarries for source material and convenient access to the San Gabriel Freeway (I-605) for heavy duty truck trips.

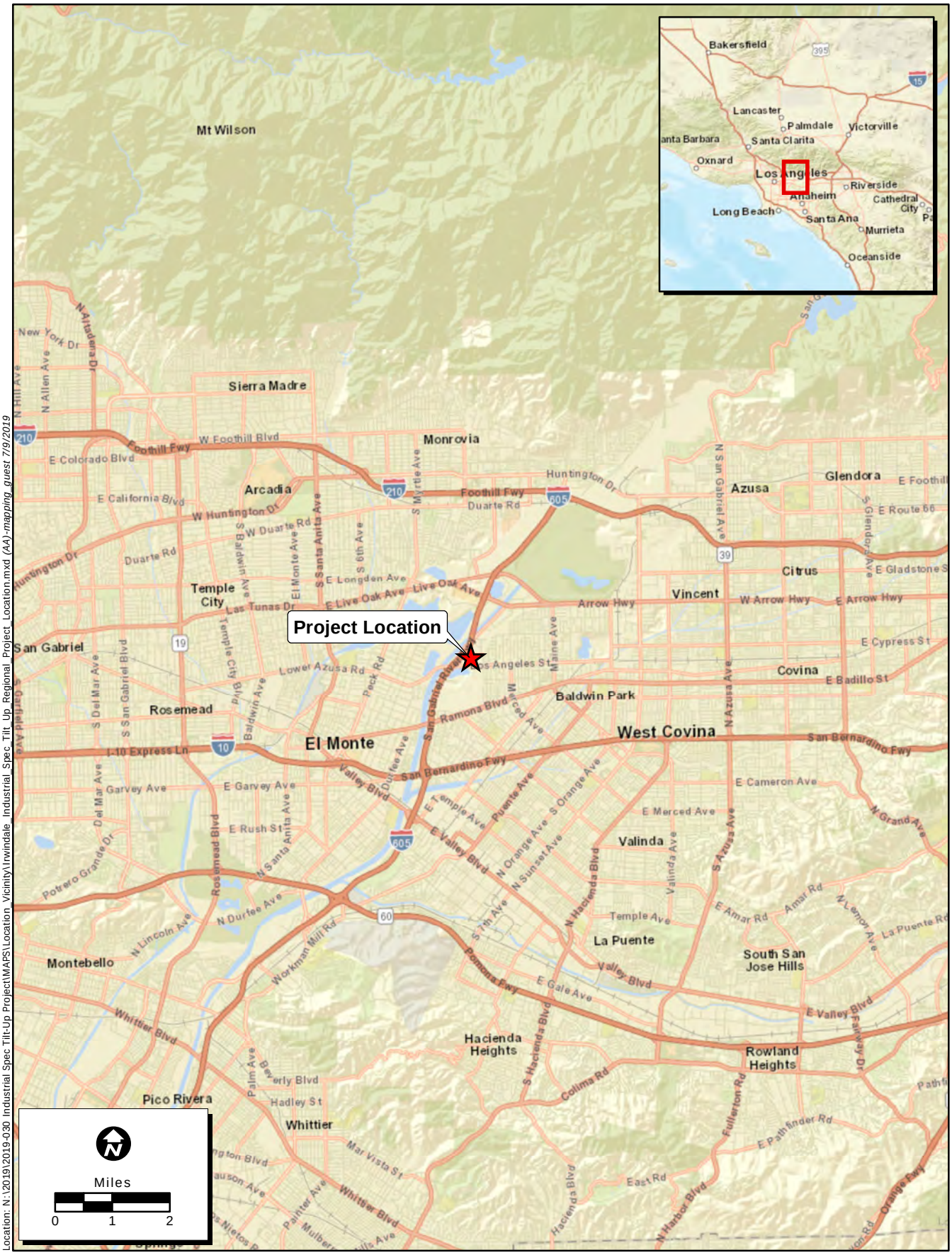
The property has been unoccupied since 2017. The current Project proponent, Duke Realty, approached the City in 2018 with plans for an approximately 528,710 SF speculative concrete tilt-up building on the site.

2.4 Existing and Future Land Use

The Project site is currently occupied by three office buildings totaling 32,501 square feet. The site has largely been cleared of facilities associated with this former use, with the exception of an approximate 20,000 SF brick and concrete office building with a flat roof and steel-framed windows and doors at the south end of the Property; a small mobile office is attached at the northeast corner of the building; an approximate 2,883 SF office building; and an approximate 9,618 SF maintenance building are present to the east of the main building. The Project applicant plans to move forward with demolition of these remaining buildings ahead of Project construction.

The vacant site is largely unpaved and has been highly disturbed through decades of industrial manufacturing and heavy truck usage. Surrounding the Project site are commercial and industrial buildings (City of Baldwin Park) to the east, Rivergrade Road and the San Gabriel River Freeway (I-605) to the north, an industrial building (SCE Material Supply, Irwindale Distribution Center) to the west, Los Angeles Street and a gravel quarry (Vulcan Durbin Materials Plant) to the south.

[1] Pursuant to Article XIII of the Charter of the City of Irwindale, *Mitigation on Negative Environmental Impacts of Mining Operations,* and in recognition of the adverse effects of such large-scale operations on City residents, the City has established a program of appropriating funds for medical benefits available to residents that include a Resident Prescription and Vision Care Program.



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Map Date: 7/9/2019

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 2.0-1. Regional Project Location

2019-030 Irwindale Industrial Spec Tilt-Up Project

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Map Date: 7/9/2019
Base Source: NAIP 2018

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 2.0-2. Project Location

2019-030 Irwindale Industrial Spec Tilt-Up Project

The proposed Project would construct an industrial warehouse building, within an existing and established industrial/business park area. The new building is estimated to be up to 53.5 feet tall, accommodating approximately 528,170 square feet of industrial warehousing space. As the future tenant(s) of the building are not known, the projected number of employees/occupants of the Project cannot be precisely determined. If occupied by multiple light industrial uses for example, the number of employees would likely exceed that of a typical single tenant warehouse user. Accordingly, a highly conservative occupancy ratio of 1 employee/500 square feet, more typical of a light industrial use would yield up to 1,058 employees at the site (Source: RGA. A2-1 Overall Floor Plan).

As described throughout this EIR, the proposed industrial/warehouse use is consistent with the City's industrial/business park land use designation for the project site. The proposed Project site is located in an area designated Industrial/Business Park and zoned M-2 Heavy Manufacturing by the City of Irwindale General Plan (2008). According to the General Plan, typical land uses and/or developments that occur within areas designated as Industrial/Business Park consist of light industry, heavy industry, and distribution. This type of development is "usually well landscaped, provides abundant parking, and a uniform architectural design theme. These attractive developments typically include office, manufacturing, and warehousing uses" (City of Irwindale 2008). The proposed Project would demolish several existing buildings and ancillary structures associated with a former concrete manufacturing business and construct a light industrial/warehouse building and associated parking, utilities, and landscaping. As such, the proposed warehouse building is consistent with the existing pattern of industrial land uses in the surrounding area.

2.5 Project Purpose and Objectives

The objectives of the 13131 Los Angeles Street Industrial Project are to:

- Locate an industrial/warehouse building on a site that is accessible to regional markets and consistent with the existing General Plan and zoning.
- Develop an industrial/warehouse project that is compatible with surrounding uses and conforms with established City Commercial and Industrial Design Guidelines.
- Provide additional employment opportunities on the project site.

2.6 Project Characteristics

The proposed Project involves the demolition of the existing on-site buildings and ancillary structures for the construction of an approximately 528,710 SF (gross) building, with a 520,524 SF ground floor and 8,456 SF mezzanine (Figure 2.0-3. Site Plan). The proposed building would be 47.5 feet tall, with architectural features extending up to 53.5 feet tall. The building would feature forklift ramps and roll-up dock doors on the northern and western sides, respectively.

Parking

The proposed site would include 261 standard vehicle parking spaces, 149 trailer stalls, and 13 bicycle parking stalls. A total of four entryways would be provided for access to the site: two driveways on Los

Angeles Street, and two gated driveways along Rivergrade Road (Figure 2.0-3. Site Plan). The project would feature 12' wide x 15' high level vertical lift truck doors (2 north, 2 west), 9' wide x 10' high vertical lift truck doors (14 north, 33 west), and 3' wide x 7'high metal man doors (3 north, 9 west, 2 east, 12 south) (Figure 2.0-4. Building Elevations).

Landscaping

The Project would feature 109,330 SF of landscaping including London plane, chitalpa, and date palms trees along Los Angeles Street. Landscaping around the perimeter of the site would include trees, shrubs, accent plants, and groundcover. All landscape shall be bound by a 6" high concrete curb. The landscaping plan shall be submitted to the planning department for approval prior to the issuance of building permits and shall be implemented prior to occupancy.

2.6.1 Land Uses

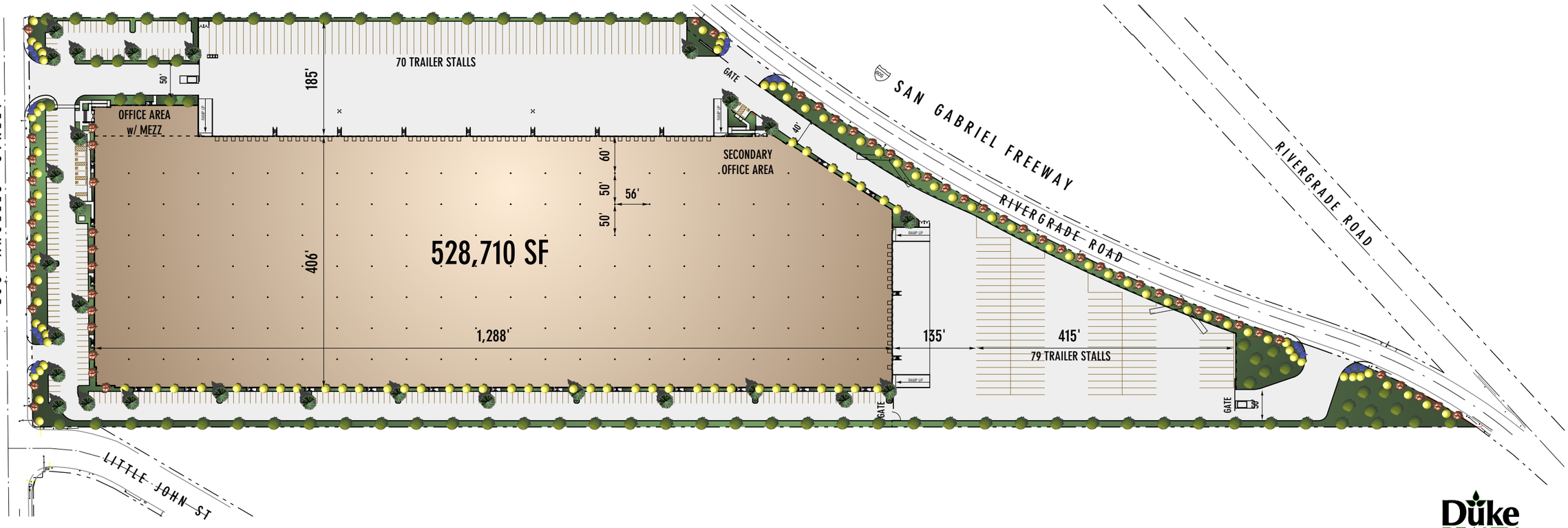
The site is located in an area zoned M-2 Heavy Manufacturing by the City of Irwindale General Plan (2008) and would develop an industrial warehouse project that is compatible with surrounding uses. According to the General Plan, this type of development is usually characterized by "intensive industrial operations that may also include outdoor storage of materials and equipment as an ancillary use" (City of Irwindale 2008). Compatibility with surrounding land uses and conformity with the City Commercial and Industrial Design Guidelines would be established through the City's project review and Site Development Permit. While the proposed warehouse use is consistent with the proposed Project site's current M-2 Heavy Manufacturing zoning designation, no specific tenant(s) have been identified to occupy the proposed building.

2.6.2 Circulation

The existing circulation system is comprised of key roadways that traverse defined traffic study intersections that serve the Project site. Principal among these are Los Angeles Street/Lower Azusa Road, Rivergrade Road, and Little John Street that directly serve the Project site. Regional access to the site is derived principally from Los Angeles Street via the nearby San Gabriel Freeway (I-605). A site-specific traffic study has been prepared according to City of Irwindale and Caltrans reporting requirements for inclusion in this EIR for the proposed Project (Appendix J). The study quantifies the volume of vehicular traffic anticipated to travel to and from the Project site. The traffic study also models the effects of Project-related traffic on the local and regional circulation system and identifies mitigation measures to reduce significant effects.

2.6.3 Infrastructure and Public Utilities

The Project site previously supported an active pre-cast concrete manufacturing facility that utilized existing utility connections at the site. The proposed Project would include new connections to existing gas, water, and sewer lines off Los Angeles Street. Additionally, it would involve the addition of fire hydrants, storm drains, drainage basins.



SITE PLAN

Duke REALTY

RGA
Office of Architectural Design
15231 Alton Parkway, Suite 100
Irvine, CA 92618
T 949-341-0920
FX 949-341-0922

Location: N:\2019\2019-030 Industrial Spec Tilt-Up Project\MAPS\Borders\Irwindale_Industrial_Spec_Tilt_Up_Site_Plan.mxd (AA)-mapping_quest_7/9/2019

Map Date: 7/9/2019
Source: RGA

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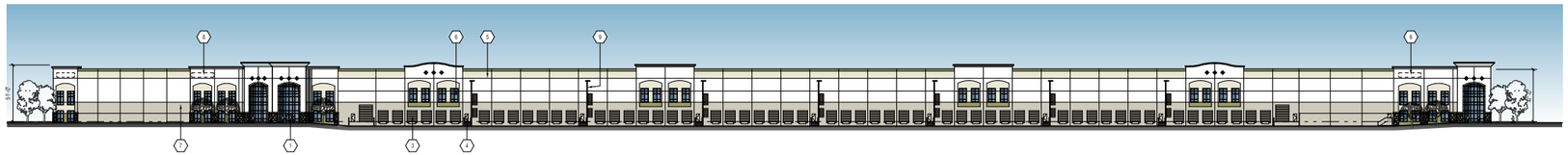
Figure 2.0-3. Site Plan

2019-030 Irwindale Industrial Spec Tilt-Up Project

NORTH ELEVATION
SCALE: 1" = 30'-0"

PARTIAL SOUTH ELEVATION
SCALE: 1/16" = 1'-0"



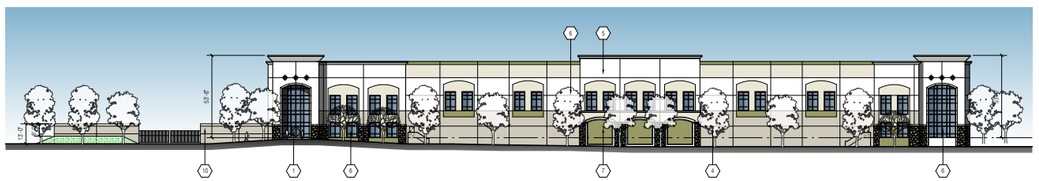
WEST ELEVATION
SCALE: 1" = 40'-0"

KEYNOTES

1. PRIMARY ENTRANCE.
2. PAINTED 12' WIDE X 15' HIGH LEVEL VERTICAL LIFT TRUCK DOOR.
3. PAINTED 9' WIDE X 10' HIGH VERTICAL LIFT TRUCK DOOR.
4. 3' X 7' PAINTED METAL MAN DOOR.
5. TYPICAL 2" WIDE X 3/4" DEEP HORIZONTAL / VERTICAL REVEAL.
6. BLUE GLASS IN ANODIZED ALUMINUM STOREFRONT FRAME SYSTEM.
7. PAINTED CONCRETE TILT-UP EXTERIOR WALL CONSTRUCTION.
8. PROPOSED FUTURE TENANT SIGNAGE LOCATION TO BE APPROVED UNDER A SEPARATE PERMIT.
9. DOWNSPOUTS ON THE EAST & WEST ELEVATIONS SHALL BE EXTERNAL AND PAINTED TO MATCH THE BUILDING.
10. PAINTED CONCRETE TILT-UP SCREEN WALL (ADJACENT TO NORTHWEST OFFICE POD ONLY) WITH REVEAL SCORES.

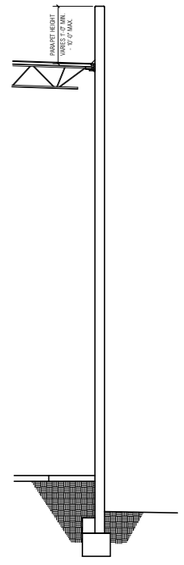
FINISH SCHEDULE

1. FIELD COLOR - PPG - OATMEAL - 1023-1
2. ACCENT COLOR - PPG - SHARKSKIN - 1025-4
3. ACCENT COLOR - PPG - DARK ASH - 1025-5
4. ACCENT COLOR - PPG - OLIVE GRAY - 1027-4
5. STONE VENEER - EL DORADO STONE - ANDANTE FIELDLEDGE
6. GLAZING - SEE KEYNOTE 5 - PPG VISTACOOL PACIFICA REFLECTIVE #2.



SOUTH ELEVATION
SCALE: 1" = 30'-0"

EAST ELEVATION
SCALE: 1" = 40'-0"



TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"

A

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CONSULTANT

PROFESSIONAL SEALS

LOS ANGELES STREET PROJECT

13131 LOS ANGELES STREET
CITY OF IRWINDALE, CA

Duke REALTY
200 SPECTRUM CENTER DRIVE
SUITE 1600
IRVINE, CA 92618
949-797-7038 PH
865-776-1344 CELL

MARK	DATE	DESCRIPTION
SD	9/1/18	SCHEMATIC DESIGN
DD		
PC		
BID		
CD		

RGA PROJECT NO:	18100.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	18100-00-A3-1P
DRAWN BY:	CF
CHK'D BY:	DR

SHEET TITLE
ELEVATIONS

SHEET: A3-1P

Location: N:\2019\2019-030 Industrial Spec Tilt-Up Project\MAPS\Borders\Irwindale_Industrial_Spec_Tilt_Up_Building_Elevations.mxd (A4)-mapping_guest 7/9/2019

Map Date: 7/9/2019
Source: RGA

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Figure 2.0-4. Building Elevations

2019-030 Irwindale Industrial Spec Tilt-Up Project

The Infrastructure Element in the City General Plan (City of Irwindale 2008) details the City's utilities and service systems, including water, wastewater, and solid waste. According to the General Plan, the City has adequate domestic water service, public wastewater lines, roads, schools, trash, public facilities, parks and recreation, fire and police services for the level of development projected by the City. Language from the General Plan is included in the sections below.

2.6.3.1 Water Service

Several different water purveyors serve the City. The City of Azusa Water Department provides basic service to the largest portion of Irwindale from its most northeasterly boundaries to Ornelas Street, including all of the Santa Fe Dam area located to the east of the San Gabriel River Freeway. California-American Water Company, located in the City of San Marino, serves the area north of the Buena Vista Channel to the Duarte boundary with potable water for domestic, landscaping, and fire protection purposes. Finally, the San Gabriel Valley Water Company, located in the City of El Monte, serves approximately 50 customers in the Vulcan's Durbin Pit area as well as the area generally located between Lower Azusa Road and Ramona Boulevard. The Southern California Water Company serves a portion of the westernmost part of the City north of Live Oak Avenue.

The proposed Project site is served by the Valley County Water District (VCWD), which procures its water supplies primarily from the Main Basin and imported water. VCDW serves the southeasterly portion of the City as well as an area generally bounded by Arrow Highway, Live Oak Avenue, and the I-605 Freeway.

2.6.3.2 Wastewater

The Los Angeles County Sanitation Districts (Districts) provide all of Irwindale's sewer services. The majority of the City is served by Sanitation District 22; with a small portion of its southwestern area served by District 15. The District's trunk sewer lines extend throughout the City, with no under-served areas. The Los Angeles County Sewer Maintenance District, located in the City of Alhambra, provides maintenance for the City's six miles of sewers on a contract basis, including emergency services on a 24-hour basis.

2.6.3.3 Solid Waste

The City has an exclusive franchise agreement with Athens Services to provide mixed waste collection services and other available programs to its residents and business community. Athens Services currently transports all of Irwindale's commercial waste to a Materials Recovery Facility, where recyclable materials are sorted and then diverted from local landfills. Several quarry sites throughout the City are designated for landfill use.

2.7 Construction

Project construction is anticipated to begin in Spring/Summer 2020 if approved. Completion of construction and tenant occupancy is anticipated in late 2020. Construction of the Project would involve grading, paving, utility installation, building construction, and landscaping installation. The proposed phasing of demolition and construction is as follows: 1) demolition of the existing buildings, 2) excavation/shoring, 3) utilities installation, 4) building construction, and 5) repaving and landscaping.

The construction labor force would fluctuate depending on the phase of work. Building construction work force would vary during phases and would peak during building construction.

2.8 Required Permits and Approvals

The following approvals and regulatory permits would be required for implementation of the proposed Project:

- Site Plan and Design Review Permit (DA)
- Grading and Building permits
- Certification of the EIR

3.0 ENVIRONMENTAL IMPACT ANALYSIS

This main chapter of the DEIR includes separate sections for each environmental topic. The analysis begins with a review of the environmental setting, existing conditions on the site and in the surrounding area, and regulatory setting, in order to provide a context for the analysis of environmental effects that follows.

Determinations regarding levels of significance are developed for each topical issue area analyzed in the DEIR. These determinations are typically based upon existing technical studies and reports related to the project. The environmental issue areas to be evaluated in the DEIR are:

- Air Quality
- Cultural Resources
- Energy
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

Direct, indirect, and cumulative effects of the project are discussed. Mitigation measures to reduce or avoid significant environmental impacts are identified.

Section 15128 of the CEQA Guidelines, Effects Found Not to be Significant, requires a statement that briefly indicates 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 DEIR. As stated in the CEQA Guidelines, such a statement may be contained in an attached copy of an Initial Study. The Initial Study for the proposed project is included in this EIR as Appendix A. As documented in Appendix A, the following issue areas were not found to be significant and were not further analyzed in the DEIR:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Geology and Soils
- Mineral Resources

- Population and Housing
- Public Services
- Recreation
- Wildfire

Table 3.0-1 and Figure 3.0-1 that follow depict related areawide projects identified by the City of Irwindale and surrounding jurisdictions for purposes of evaluating cumulative impacts (CEQA Guidelines 15355).

Table 3.0-1. Related Area Projects

No	Project Name	Address	City	Land Use	Intensity	Units
1	Manning Pit	5175 Vincent Avenue	Irwindale	General Light Industrial	545.735	KSF
2	The Park @ Live Oak	1200 Arrow Highway	Irwindale	General Light Industrial	1,451.400	KSF
			Irwindale	Shopping Center	98.600	KSF
3	Panattoni	16203-16233 Arrow Highway	Irwindale	General Light Industrial	130.366	KSF
4	Panattoni	242 Live Oak Avenue	Irwindale	General Light Industrial	85.400	KSF
5	Ayala Industrial Bldg.	5589 Ayala Avenue	Irwindale	General Light Industrial	80.000	KSF
6	Irwindale Med. Clinic	15768 Arrow Highway	Irwindale	Medical/Dental Office	13.300	KSF
7	Wendy's Restaurant	15768 Arrow Highway	Irwindale	Fast-Food with Drive-Thru Window	2.300	KSF
8	Kaiser Med. Office Bldg.	12761 Schabarum Avenue	Irwindale	Medical/Dental Office	90.000	KSF
9	Reliance II	15990 Foothill Boulevard	Irwindale	General Light Industrial	1,853.000	KSF
			Irwindale	Shopping Center	10.000	KSF
10	City of Hope	1500 E. Duarte Road	Irwindale	Medical/Dental Office	108.804	KSF
11	Tentative Tract Map 82190	2424 & 2428 Mountain Avenue	Irwindale	Single-Family Homes	7.0	Dwelling Units
12	Tentative Parcel Map 82188	4826 Baca Avenue	Irwindale	Single-Family Homes	4.0	Dwelling Units
13	Tentative Parcel Map 82189	5134 Irwindale Avenue	Irwindale	Single-Family Homes	2.0	Dwelling Units
14	22-unit single-family subdivision	4422-4436 Bannister Street	El Monte	Single-Family Homes	22.0	Dwelling Units
15	3 new single-family units	5229 Hammill Road	El Monte	Single-Family Homes	3.0	Dwelling Units
16	3 2,747 Square foot res units on	11646 Lower Azusa Road	El Monte	Single-Family Homes	3.0	Dwelling Units
17	5-unit Planned Unit Development and one common private	11830 Lambert Avenue	El Monte	Single-Family Homes	5.0	Dwelling Units

Table 3.0-1. Related Area Projects

No	Project Name	Address	City	Land Use	Intensity	Units
18	5-detached 2-story res units	11613 Rio Hondo Parkway	El Monte	Single-Family Homes	5.0	Dwelling Units
19	23 unit condominium	14751 Badillo Street	Baldwin Park	Multifamily Housing (Mid-Rise)	23.0	Dwelling Units
20	97,945 SF 10 unit industrial warehouse condominium	5119 Azusa Canyon Rd	Baldwin Park	General Light Industrial	97.945	KSF
21	15 single family residential	15138 Nubia Street	Baldwin Park	Single-Family Homes	15.0	Dwelling Units
22	5 unit condominium	4232 LA Rica Avenue	Baldwin Park	Multifamily Housing (Low Rise)	5.0	Dwelling Units

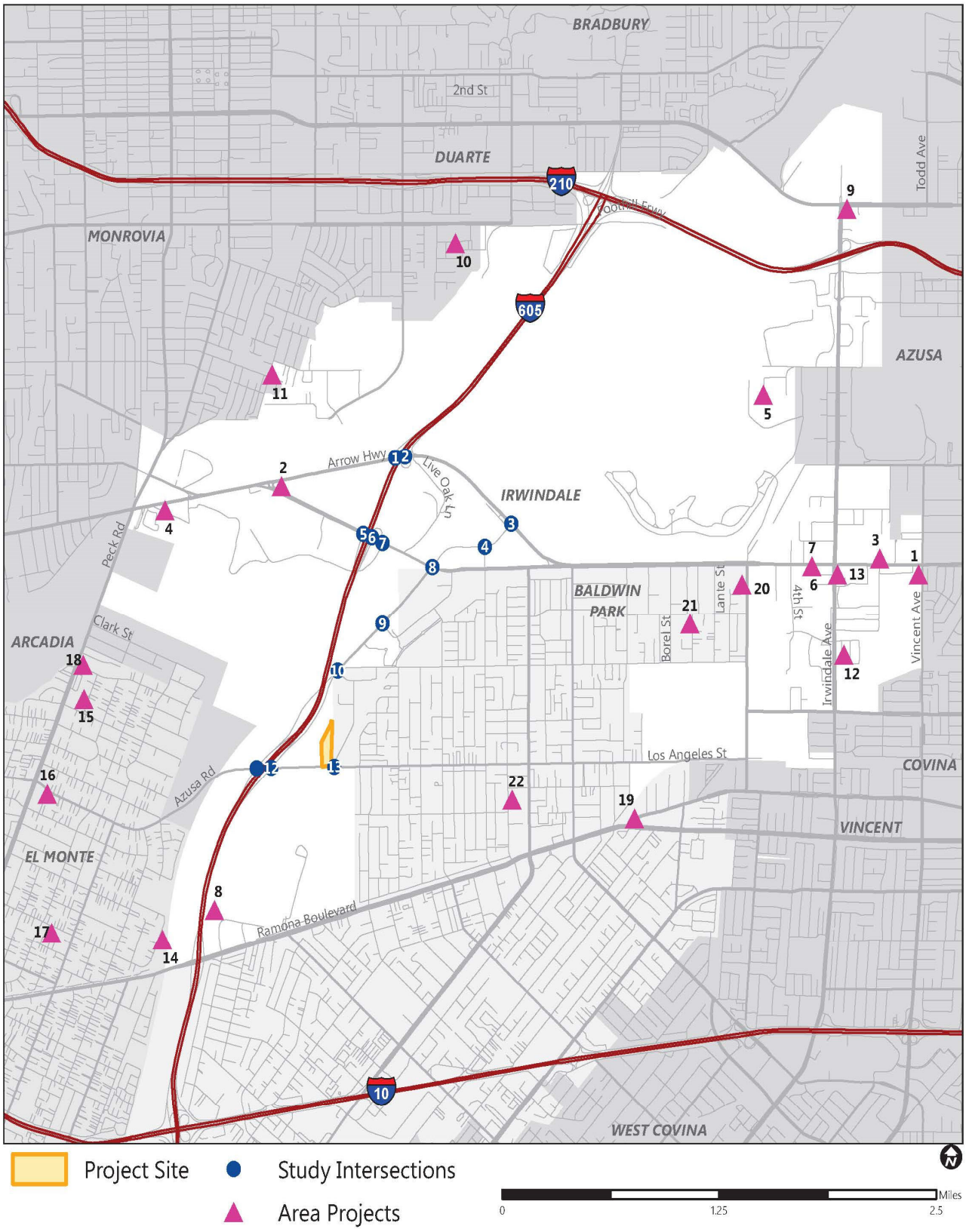

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Figure 3.0-1. Location of Related Area Projects

2019-030 Irwindale Industrial Spec Tilt-Up Project

3.1 Air Quality

3.1.1 Introduction

This section documents the results of an air quality assessment results from the combined Air Quality & Greenhouse Gas Assessment completed by ECORP for the 13131 Los Angeles Street Industrial Project (Project) in Irwindale, California. This assessment was prepared using methodologies and assumptions recommended in the rules and regulations of the South Coast Air Quality Management District (SCAQMD), and in consideration of the Notice of Preparation (NOP) comment letters received from both the SCAQMD and California Air Resources Board (CARB) as presented in Appendix A of the Draft EIR prepared for the Project. Regional and local existing conditions are presented, along with pertinent emission standards and regulations.

3.1.2 Environmental Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the South Coast Air Basin (SoCAB), which encompasses the Project site, pursuant to the regulatory authority of the SCAQMD.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project area.

CARB divides the state into air basins that share similar meteorological and topographical features. The City of Irwindale lies in the SoCAB, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. The air basin is on a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean on the southwest, with high mountains forming the remainder of the perimeter (SCAQMD 1993). Temperature and precipitation, humidity, wind, and inversion patterns within the SoCAB are described in the Appendix B report.

3.1.2.1 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O3), coarse particulate matter (PM10), and fine particulate matter (PM2.5) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO2), and sulfur dioxide (SO2) are considered to be local pollutants because they tend to accumulate in the air locally. Particulate matter (PM) is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 3.1-1.

Table 3.1-1. Criteria Air Pollutants- Summary of Common Sources and Effects

Pollutant	Major Manmade Sources	Human Health & Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO_2	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O_3	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N_2O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM_{10} & $PM_{2.5}$	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO_2	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: California Air Pollution Control Officers Association (CAPCOA 2013)

Carbon Monoxide

CO, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow moving traffic. Even under the most sever meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances (i.e., up to 600 feet or 185 meters) of the source. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973. CO levels in the SoCAB are in compliance with the state and federal one- and eight-hour standards.

Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NOx). Motor vehicle emissions are the main source of NOx in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and

influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x, such as NO and NO_2, attribute to the formation of O_3 and $PM_{2.5}$. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

Ozone

O_3 is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOCs) or ROG and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NOx forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

Particulate Matter

PM includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM_{10}) and small than or equal to 2.5 microns in diameter ($PM_{2.5}$). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM_{10} is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances. $PM_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x, sulfur oxides (SOx) and VOCs. $PM_{2.5}$ can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high $PM_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the U.S. Environmental Protection Agency (USEPA), some people are much more sensitive than others to breathing PM_{10} and $PM_{2.5}$. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

3.1.2.2 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children (whose lungs are still developing) and the elderly (who may have other serious health problems). Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Diesel engines also contribute to California's $PM_{2.5}$ air quality problems. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

Diesel Exhaust

Most recently, CARB identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

3.1.2.3 Ambient Air Quality

Ambient air quality at the Project site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. The Azusa (803 North Loren Avenue, Azusa) air quality monitoring station, located approximately six miles northeast of the development site, is the closest station to the site. The Azusa monitoring station monitors ambient concentrations of O_3, $PM_{2.5}$, PM_{10}, the three pollutants in nonattainment of air quality standards in the Project region. Ambient emission concentrations will vary

due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the development area.

Table 3.1-2 summarizes the published data concerning O_3, $PM_{2.5}$, PM_{10} since 2016 from the Azusa monitoring station for each year that the monitoring data is provided. O_3, PM_{10} and $PM_{2.5}$ are the pollutant species most potently affecting the Project region.

Table 3.1-2. Summary of Ambient Air Quality Data

Pollutant Standards	2016	2017	2018
O_3			
Max 1-hour concentration (ppm)	0.146	0.152	0.139
Max 8-hour concentration (ppm) (state/federal)	0.107 / 0.106	0.114 / 0.114	0.100 / 0.099
Number of days above 1-hour standard (state/federal)	30 / 4	38 / 7	24 / 3
Number of days above 8-hour standard (state/federal)	40 / 36	64 / 62	43 / 42
PM_{10}			
Max 24-hour concentration (µg/m3) (state/federal)	74.6 / 74.0	83.9 / 83.9	78.3 / 78.3
Number of days above 24-hour standard (state/federal)	* / 0	* / 0	59.2 / 0
$PM_{2.5}$			
Max 24-hour concentration (µg/m3) (state/federal)	32.1 / 32.1	24.9 / 24.9	41.8 / 41.8
Number of days above federal 24-hour standard	0	0	0

Source: CARB 2019
µg/m3 = micrograms per cubic meter; ppm = parts per million
* = Insufficient data available

The USEPA and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O_3, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the SoCAB is included in Table 3.1-3.

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, PM_{10}, and $PM_{2.5}$ (CARB 2018a). The Project region is also a nonattainment area for the federal lead

standard. This is a result of operations at the Ports of Los Angeles and Long Beach coupled with a few specific industrial processes that occur in the region, such as battery recycling. The Project would not be source of lead.

Table 3.1-3. Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State Designation	Federal Designation
O_3	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment

Source: CARB 2018a

3.1.2.4 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptors to the Project site are residences located approximately 205 meters (670 feet) to the east. In addition to these residences, three schools (Walnut Elementary School, Burch Elementary School, and Olive Middle School) are located within one mile of the Project site.

3.1.3 Regulatory Setting

Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that CO_2 is an air pollutant covered by the CAA; however, no NAAQS have been established for CO_2.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults

can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the SoCAB for the criteria pollutants.

State

California Clean Air Act

The CCAA allows the State to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The 2016 Air Quality Management Plan (2016 Air Quality Management Plan [AQMP]) is the SIP for the SoCAB. The 2016 AQMP is a regional blueprint for achieving air quality standards and healthful air in the SoCAB and those portions of the Salton Sea Air Basin that are under SCAQMD's jurisdiction. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The most effective way to reduce air pollution impacts is to reduce emissions from mobile sources. The AQMP relies on a regional and multi-level partnership of governmental agencies at the federal, state, regional, and

local levels. These agencies (USEPA, CARB, local governments, Southern California Association of Governments [SCAG] and the SCAQMD) are the primary agencies that implement the AQMP programs. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's latest Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. The 2016 AQMP includes integrated strategies and measures to meet the NAAQS. The current status of the SIPs for the SoCAB's nonattainment pollutants are shown below:

- On November 28, 2007, CARB submitted a SIP revision to the USEPA for O_3, $PM_{2.5}$ (1997 Standard), CO, and NO_2 in the SoCAB. This revision is identified as the "2007 South Coast SIP". The 2007 South Coast SIP demonstrates attainment of the federal $PM_{2.5}$ standard in the SoCAB by 2014 and attainment of the federal eight-hour O_3 standard by 2023. This SIP also includes a request to reclassify the O_3 attainment designation from "severe" to "extreme". The USEPA approved the redesignation effective June 4, 2010. The "extreme" designation requires the attainment of the eight-hour O_3 standard in the SoCAB by June 2024. CARB approved $PM_{2.5}$ SIP revisions in April 2011 and the O_3 SIP revisions in July 2011. The USEPA approved the $PM_{2.5}$ SIP in 2013 and has approved 46 of the 61 1997 8-hour O_3 SIP requirements (USEPA 2018a). In 2014, the USEPA proposed a finding that the SoCAB has attained the 1997 $PM_{2.5}$ standards. In 2016, the USEPA determined that the SoCAB had attained the 1997 $PM_{2.5}$ standards; however the SoCAB was not redesignated as an attainment area because the USEPA had not approved a maintenance plan and additional requirements under the CAA had not been met (USEPA 2018b).
- In 2012, the SCAQMD adopted the 2012 AQMP, which was a regional and multiagency effort (the SCAQMD, CARB, SCAG, and the USEPA). The primary purposes of the 2012 AQMP were to demonstrate attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 and to update the USEPA-approved 8-hour Ozone Control Plan. In 2012, the 2012 AQMP was submitted to CARB and the USEPA for concurrent review and approval for inclusion in the SIP. The 2012 AQMP was approved by CARB on January 25, 2013.
- In 2017, the SCAQMD adopted the 2016 AQMP. The 2016 AQMP includes strategies and measures to meet the following NAAQS:
    - 2008 8-hour O_3 (75 parts per billion [ppb]) by 2013
    - 2012 Annual $PM_{2.5}$ (12 µg/m^3) by 2025
    - 1997 8-hour O_3 (80 ppb) by 2023
    - 1979 1-hour O_3 (120 ppb) by 2022
    - 2006 24-hour $PM_{2.5}$ (35 µg/m^3) by 2019

Tanner Air Toxics Act & Air Toxics "Hot Spots" Information and Assessment Act

CARB's Statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to

designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the "Hot Spots" Act was amended by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

Mobile Source Strategy

In 2016 CARB released the update to the Mobile Source Strategy (Strategy). This demonstrates how the state will meet air quality standards, achieve greenhouse gas (GHG) emission reduction targets, decrease health risks from transportation emissions, and reduce petroleum consumption over the next 15 years. This includes engine technology that is effectively 90 percent cleaner than today's current standards, with clean, renewable fuels comprising half the fuels burned.

The strategy also relies on the increased use of renewable fuels to ensure that air pollutant reductions are achieved while meeting the ongoing demand for liquid and gaseous fuels in applications where combustion technologies remain, including in heavy-duty trucks and equipment and light-duty hybrid vehicles. The estimated benefits of the Mobile Source Strategy in reducing emissions from mobile sources includes an 80 percent reduction of O_3-forming emissions (ROG and NOx), and a 45 percent reduction in DPM emissions in the SoCAB from current levels. Statewide, the Strategy would also result in a 45 percent reduction of GHG emissions and a 50 percent reduction in the consumption of petroleum-based fuels.

Governor's Sustainable Freight Action Plan

Under the Governor's Sustainable Freight Action Plan strategy, CARB is working with agency partners and stakeholders to implement a broad program that includes regulations, incentives, and policies designed to support the transformation to a more sustainable freight system and reduce community impacts from freight operations in California. The Governor's Sustainable Freight Action Plan identifies strategies and actions to achieve a sustainable freight transportation system that meets California's environmental, energy, mobility, safety and economic needs. The plan also identifies and initiates corridor-level freight pilot projects within the state's primary trade corridors that integrate advanced technologies, alternative fuels, freight and fuel infrastructure and local economic development opportunities. The plan seeks to improve the state freight system efficiency 25 percent by "increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030" as well as to deploy over 100,000 zero-emission freight vehicles and equipment and maximizing near-zero equipment and equipment powered by renewable energy by 2030.

Diesel Risk Reduction Plan

The identification of DPM as a TAC in 1998 led CARB to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan) in October 2000. The Risk Reduction Plan's goals include an 85 percent reduction in DPM by 2020 from the 2000 baseline (CARB 2000). The Risk Reduction Plan includes regulations to establish cleaner new diesel engines, cleaner in-use diesel engines (retrofits), and cleaner diesel fuel.

Truck and Bus Regulation Reducing Emissions from Existing Diesel Vehicles

In 2008, CARB approved the Truck and Bus Regulation to significantly reduce PM and NO_X emissions from existing diesel vehicles operating in California. The regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Heavier trucks had to be retrofitted with PM filters beginning January 1, 2012, and older trucks had to be replaced by January 1, 2015. By January1, 2023, nearly all trucks and buses will need to have 2010-model-year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds. Small fleets with three or fewer diesel trucks can delay compliance for heavier trucks by reporting and there are a number of extensions for low-mileage construction trucks, early PM filter retrofits, adding cleaner vehicles, and other situations. Privately and publicly owned school buses have different requirements.

Heavy-Duty Vehicle Idling Emission Reduction Program

The purpose of CARB's ATCM *to Limit Diesel-Fueled Commercial Motor Vehicle Idling* is to reduce public exposure to DPM and criteria pollutants by limiting the idling of diesel-fueled commercial vehicles.[2] The driver of any vehicle subject to this ATCM is prohibited from idling the vehicle's primary diesel engine for greater than five minutes at any location and is prohibited from idling a diesel-fueled auxiliary power system for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

CARB Final Regulation Order, *Requirements to Reduce Idling Emissions from New and In-Use Trucks*, beginning in 2008, requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park", and the parking brake is engaged.

[2] *The ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling is codified in Title 13 of the* CCR*, Chapter 10, § 2485.*

Local

South Coast Air Quality Management District

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties, including the Project site. The agency's primary responsibility is ensuring that the federal and California ambient air quality standards (FAAQS and CAAQS, respectively) are attained and maintained in the SoCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The following is a list of noteworthy SCAQMD rules that are required of construction activities associated with the Proposed Project:

- **Rule 201 & Rule 203 (Permit to Construct & Permit to Operate)** – Rule 201 requires a "Permit to Construct" prior to the installation of any equipment "the use of which may cause the issuance of air contaminants . . ." and Regulation II provides the requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate.
- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible PM are prohibited from crossing any property line. This rule is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression techniques are summarized below.

    a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
    b) All onsite roads will be paved as soon as feasible or watered periodically or chemically stabilized.
    c) All material transported offsite will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
    d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.

e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.

- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.
- **Rule 1401 (New Source Review of Toxic Air Contaminants**) – This rule requires new source review of any new, relocated, or modified permit units that emit TACs. The rule establishes allowable risks for permit units requiring permits pursuant to Rules 201 and 203 discussed above.
- **Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities**) – This rule specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.

Additionally, the SCAQMD has adopted the Air Toxics Control Plan (March 2000, revised March 26, 2004), which is a planning document designed to examine the overall direction of the SCAQMD's air toxics control program. It includes development and implementation of strategic initiatives to monitor and control air toxics emissions. Control strategies that are deemed viable and are within the SCAQMD's jurisdiction will each be brought to the SCAQMD Board for further consideration through the normal public review process. Strategies that are to be implemented by other agencies will be developed in a cooperative effort, and the progress will be reported back to the Board periodically.

The SCAQMD has conducted an in-depth analysis of the TACs and their resulting health risks for all of Southern California. This study, the "Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES IV," shows that cancer risk has decreased more than 50 percent between MATES III (2008a) and MATES IV (2015). MATES IV is the most comprehensive dataset documenting the ambient air toxic levels and health risks associated with the SoCAB emissions. The SCAQMD is currently in the process of developing MATES V. The MATES IV study represents the baseline health risk for a cumulative analysis. MATES IV estimates the average excess cancer risk level from exposure to TACs is less than 400 in one million basin-wide. These model estimates were based on monitoring data collected at 10 fixed sites within the SoCAB. None of the fixed monitoring sites are within the local area of the Project site. However, MATES IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES IV modeling predicted an excess cancer risk of 427 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68 percent of the total risk shown in MATES-IV.

3.1.4 Impact Analysis

3.1.4.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would:

1) Conflict with or obstruct implementation of any applicable air quality plan.

2) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

3) Expose sensitive receptors to substantial pollutant concentrations.

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

3.1.4.2 SCAQMD Thresholds

The significance criteria established by the applicable air quality management or air pollution control district (SCAQMD) may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if the Proposed Project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality for construction and operational activities of land use development projects such as that proposed, as shown in Table 3.14.

Table 3.1-4. SCAQMD Regional Significance Thresholds – Pounds per Day

Air Pollutant	Construction Activities	Operations
Reactive Organic Gas	75	55
Carbon Monoxide	550	550
Nitrogen Oxide	100	55
Sulfur Oxide	150	150
Coarse Particulate Matter	150	150
Fine Particulate Matter	55	55

Source: SCAQMD 1993 ($PM_{2.5}$ threshold adopted June 1, 2007)

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

3.1.4.3 Localized Significance Thresholds

In addition to regional significance thresholds, the SCAQMD developed localized significance thresholds (LSTs) for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at new development sites (offsite mobile source emissions are not included in the LST analysis protocol). LSTs represent the maximum emissions that can be generated at a Project site without expecting to cause or substantially contribute to an exceedance of the most stringent national or State ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the Project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that disturb five acres or less on a single day. Irwindale is located within SCAQMD SRA 9 (East San Gabriel Valley). Table 3.1-5 shows the LSTs for a one-acre, two-acre, and five-acre project site in SRA 9 with sensitive receptors located within 200 meters of the Project site (as previously described, the nearest sensitive receptors are residences located approximately 205 meters [670 feet] east of the Project site).

Table 3.1-5. Local Significance Thresholds

Project Size	Pollutant (pounds per day Construction/Operations)			
	NO_2	CO	PM_{10}	$PM_{2.5}$
1 Acre	251 / 251	4,803 / 4,803	75 / 19	22 / 6
2 Acres	284 / 284	5,658 / 5,658	84 / 20	26 / 7
5 Acres	368 / 368	7,600 / 7,600	105 / 26	35 / 9

Source: SCAQMD 2009

3.1.4.4 Methodology

Air quality impacts were assessed in accordance with methodologies recommended by CARB and the SCAQMD, as well as in consideration of the NOP comment letters received from both the SCAQMD and CARB as presented in Appendix A of the Draft EIR prepared for the Project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were primarily calculated using CalEEMod model defaults for Los Angeles County. Operational air pollutant emissions were based on the Project site plans and the estimated traffic trip generation rates and Project fleet mix from KOA Corporation (2019). This analysis is based on an estimate of 557 heavy-duty truck trips daily (349 three- and four-axle heavy-heavy-duty trucks and 208 two-axle medium-heavy-duty trucks) as provided by KOA, and thus is more conservative then recommended by the SCAQMD.

Additionally, DPM concentration generated from Project haul trucks and the associated dispersion was modeled using the USEPA's AERMOD air toxic dispersion model. AERMOD is a steady-state plume model

that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. The resultant concentration values were then used to calculate chronic and carcinogenic health risk using the standardized equations contained in the California Office of Environmental Health Hazard Assessment's (OEHHA) *Guidance Manual for Preparation of Health Risk Assessments* (2015).

3.1.4.5 Project Impact Analysis

Project Construction-Generated Criteria Air Quality Emissions

Regional Construction Significance Analysis

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., excavators, trenchers, dump trucks), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation. Construction activities would be subject to SCAQMD Rule 403, which requires taking reasonable precautions to prevent the emissions of fugitive dust, such as using water or chemicals, where possible, for control of dust during the clearing of land and other construction activities.

Construction-generated emissions associated the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Attachment A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 3.1-6. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Table 3.1-6. Construction-Related Emissions (Regional Significance Analysis)

Construction Year	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction in 2020	18.56	50.26	48.06	0.10	9.37	5.93
Construction in 2021	18.09	41.15	46.57	0.10	4.22	2.34
SCAQMD Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceed SCAQMD Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.

Notes: Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied.

Emissions estimates account for the site preparation and grading of 24.88 acres along with the demolition of 62,500 square feet of building space. Building construction, paving, and painting are assumed to occur simultaneously.

As shown in Table 3.1-6, emissions generated during Project construction would not exceed the SCAQMD's regional thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

Localized Construction Significance Analysis

As noted in CARB's NOP letter concerning the Proposed Project, diesel emissions generated during the construction of the Project could potentially negatively impact the community to the east of the Project site. As previously stated, the nearest sensitive receptors to the Project site are the residences approximately 205 meters (670 feet) east of the Project site. In addition to these residences, three schools (Walnut Elementary School, Burch Elementary School, and Olive Middle School) are located within one mile of the Project site. In order to identify localized, air toxic-related impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008b]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific level proposed projects.

For this Project, the appropriate SRA for the LSTs is the East San Gabriel Valley SRA 9. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. The Proposed Project would disturb ±24.88 acres during construction. As previously described, the SCAQMD has produced lookup tables for projects that disturb less than or equal to five acres daily. The SCAQMD has also issued guidance on applying the CalEEMod emissions software to LSTs for projects greater than five acres. Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, Table 3.1-7 is used to determine the maximum daily disturbed-acreage for comparison to LSTs.

Table 3.1-7. Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Acres Graded/Disturbed per 8-Hour Day	Equipment Quantity	Operating Hours per Day	Acres Graded per Day
Site Preparation	Rubber Tired Dozers	0.5	3	8	1.5
	Tractors/ Loaders/ Backhoes	0.5	4	8	2.0
				Site Preparation Total:	**3.5**
Grading	Excavators	0.0	2	8	0.0
	Rubber Tired Dozer	0.5	1	8	0.5
	Graders	0.5	1	8	0.5
	Scraper	1.0	2	8	2.0
	Tractors/ Loaders/ Backhoes	0.5	2	8	1.0
				Grading Total:	**4.0**
				Maximum Total Acres Graded per Day:	**4.0**

As shown in Table 3.1-7, Project implementation could potentially disturb up to 3.5 acres daily during the site preparation phase of construction, and 4.0 acres daily during the grading phase of construction. Therefore, the grading phase of construction represents the most potent ground-disturbing construction activities. Thus, the LST threshold value for a 3.5-acre construction site were sourced from the LST lookup tables for site preparation and the LST threshold value for a 4.0-acre construction site were sourced from the LST lookup tables for Project grading activities.

The nearest sensitive receptors to the Project site are the residences in Baldwin Park located approximately 205 meters (670 feet) east of the Project site. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, LSTs for receptors located at 200 meters were utilized in this analysis. The SCAQMD's methodology clearly states that "off-site mobile emissions from a project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "onsite" emissions outputs were considered. Table 3.1-8 presents the results of localized emissions during the grading phase of construction, which is construction activity that disturbs the most acreage daily. The LSTs reflect a maximum disturbance of 3.5 acres daily during site preparation activities and 4.0 acres daily during grading activities, at 200 meters for the Proposed Project.

Table 3.1-8. Construction-Related Emissions (Localized Significance Analysis)

Activity	Pollutant (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Project Site Preparation	42.41	21.51	9.24	5.89
SCAQMD Localized Significance Threshold (3.5 acres of disturbance)	*326.00*	*6,629.00*	*94.50*	*30.50*
Project Site Grading	50.19	31.95	5.55	3.40
SCAQMD Localized Significance Threshold (4.0 acres of disturbance)	*340.00*	*6,952.67*	*98.00*	*32.00*
Exceed SCAQMD Localized Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.
Notes: Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied.
Emissions estimates account for the site prep and grading of 24.88 acres along with the demolition of 62,500 square feet of buildings.

Table 3.1-8 shows that the emissions of these pollutants on the peak day of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during construction activities. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative. The SCAQMD Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. The Environmental Justice Program is divided into three categories, with the LST protocol promulgated under Category I: *Further-Reduced Health Risk*. Thus, the fact that onsite Project construction emissions would be generated at rates below the LSTs for NO_x, CO, PM_{10}, and $PM_{2.5}$ demonstrates that the Project would not adversely impact the neighboring community to the east.

Project Operations Criteria Air Quality Emissions

Regional Operational Significance Analysis

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, CO, and SO_2 as well as ozone precursors such as ROG and NO_X. Project-generated increases in emissions would be predominantly associated with motor vehicle use. As previously described, operational air pollutant emissions were based on the Project site plans and the estimated traffic trip generation rates and Project fleet mix from KOA (2019). As previously described, the SCAQMD NOP comment letter recommends estimating the Project fleet mix based on 0.64 average daily heavy-duty truck trips per 1,000 sf of proposed industrial warehouse building space. Employing this SCAQMD-recommended metric results in an estimate of 338 heavy-duty truck trips daily (0.64 x 528.710 = 338). However, this analysis is based on an estimate of 557 heavy-duty truck trips daily (349 three- and four-axle heavy-heavy-duty trucks and 208 two-axle medium-heavy-duty trucks) as provided by KOA, and thus is more conservative then recommended by the SCAQMD. Consistent with SCAQMD recommendations, in order to more accurately account for the trip distribution patterns of freight trucks, the average trip length

is calculated at 49.8 miles, which represents the average distance between the Project site and the Port of Los Angeles/Long Beach, the Project site and the Banning Pass, the Project Site and the San Diego County line, the Project site and the Cajon Pass, and the Project site and downtown Los Angeles.

Long-term operational emissions attributable to the Project are identified in Table 3.1-9 and compared to the regional operational significance thresholds promulgated by the SCAQMD.

Table 3.1-9. Operational-Related Emissions (Regional Significance Analysis)

Emission Source	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions						
Area	11.81	0.00	0.05	0.00	0.00	0.00
Energy	0.28	2.57	2.15	0.01	0.19	0.19
Mobile	23.43	250.71	431.59	2.08	137.06	37.98
Total:	**35.52**	**253.29**	**433.80**	**2.09**	**137.26**	**38.18**
SCAQMD Regional Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceed SCAQMD Regional Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**
Winter Emissions						
Area	11.81	0.00	0.05	0.00	0.00	0.00
Energy	0.28	2.57	2.15	0.01	0.19	0.19
Mobile	23.04	259.77	399.87	2.00	137.07	37.98
Total:	**35.14**	**262.34**	**402.09**	**2.02**	**137.26**	**38.18**
SCAQMD Regional Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceed SCAQMD Regional Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.
Notes: Emissions projections account for a trip generation rate and fleet mix identified by KOA 2019.Specifically, KOA estimates the Project generation of 3,459 average vehicle trips daily, 16.2 percent of which would be medium-heavy duty and heavy-heavy duty trucks. The average trip length is calculated at 49.8 miles, which represents the average distance between the Project site and the Port of Los Angeles/Long Beach, the Project site and the Banning Pass, the Project Site and the San Diego County line, the Project site and the Cajon Pass, and the Project site and downtown Los Angeles.

As shown in Table 3.1-9, the Project's emissions associated with operations would exceed the SCAQMD significance threshold for NO_x. As previously described, NO_x is a precursor of O_3, a pollutant for which the SoCAB is classified nonattainment.

O_3 is produced when ROG and NO_x undergo photochemical reactions that occur only in the presence of sunlight. O_3 is a very difficult pollutant to regulate due to the time it takes to create and the fact that it can be transported away from its source by wind and meteorological air patterns. People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air

quality standards. Numerous scientific studies have linked ground level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses. O_3 and NO_x have been decreasing in California since 1975 and are projected to continue to decrease in the future. Although vehicle miles traveled across the state continue to increase, NO_x levels are decreasing due to the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_x emissions form electric utilities have also decreased due to the use of cleaner fuels and renewable energy.

SCAQMD's 2016 AQMP, previously described, identifies robust NO_X reductions from new regulations on Regional Clean Air Incentives Market (RECLAIM) facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest NO_X emissions levels achievable, yet there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial furnaces, pool heaters, and backup power equipment. The SCAQMD plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies. The 2016 AQMP also emphasizes that beginning in 2012, continued implementation of previously adopted regulations have been leading to NO_X emission reductions of 68 percent by 2023 and 80 percent by 2031. With the addition of 2016 AQMP regulatory measures, a 30 percent reduction of NO_X from stationary sources is expected in the 15-year period between 2008 and 2023. This is in addition to significant NO_X reductions from stationary sources achieved in the decades prior to 2008.

NO_x is produced as a result of incomplete fossil fuel combustion. The majority of these emissions would be generated by mobile sources, which is an emission source that cannot be regulated by the City of Irwindale. CARB is primarily responsible for controlling pollution from motor vehicles. The air district must adopt rules to achieve and maintain the SAAQS and FAAQS within their jurisdiction. A reduction of vehicle trips to and from the Proposed Project site would reduce the amount of mobile emissions. Methods of reducing vehicle trips include carpooling, transit, cycling, and pedestrian connections. However, this Project is proposing an industrial warehouse and the reduction of vehicle trips is only feasible for the employees working in the facility, though the majority of traffic trips instigated by the Project would be related to haul truck trips transporting freight.

Foothill Transit provides transit service to the City of Irwindale. The use of transit service over passenger automobiles can result in a reduction of daily air pollutants. The nearest bus stops to the Proposed Project are located 0.14 mile to the east at Los Angeles Street and Hornbrook Avenue. Additionally, the implementation element of the Irwindale General Plan Public Transit Review Program evaluates local transit to ensure circulation goals and policies are achieved.

As described in the Regulatory Framework discussion above, the State of California has implemented numerous strategies pertaining to trucks and the reduction of emissions that directly apply to the Project. Urban goods delivery is an essential component of the greater freight system and vital to the urban economy. While urban goods delivery represents a small share of urban traffic, it generates a disproportionate amount of pollution emissions. The State of California promulgates policies designed

and implemented to improve the efficiency and environmental footprint of the urban freight system, including the introduction of zero and near-zero emission vehicles—a strategy embedded in the Governor's Sustainable Freight Action Plan as well as CARB's AB 32 Scoping Plan, SIP, and Mobile Source Strategy.

Additionally, the Project is proposing an industrial warehouse use in close proximity to the I-605, I-10, and I-210, which are major regional freeway corridors. Further, the I-10 corridor has been identified as a "Major International Trade Highway Route" in the California State Goods Movement Action Plan (2007) and therefore serves to accommodate existing truck trips along the interstate. The Goods Movement Action Plan is a statewide initiative to improve and expand California's goods movement industry and infrastructure in a manner which will increase mobility and relieve traffic congestion as well as improve air quality and protect public health. The Plan further identifies I-10 (located 2.2 miles south of the Project site and linked to the Project site by I-605) as a "Priority Corridor" for development toward more efficient goods movement and anticipates that the development of good movement-supporting facilities, such as industrial warehouses like that proposed by the Project, will improve the efficiency of overall goods movement throughout the state, and thus reduce truck-related air pollutant emissions and improve air quality.

Both CARB and the SCAQMD have prepared NOP letters concerning the Proposed Project that contain several mitigation measure recommendations to reduce mobile-source criteria air pollutant emissions generated by Project operations. The following CARB and SCAQMD mitigation is recommended for the Proposed Project:

AQ-1: Prior to the certificate of occupancy issuance, the Project Applicant shall demonstrate to the satisfaction of the City of Irwindale Community Development Department Manager that the following measures would be implemented during Project operations. These measures shall be enforced and maintained through Covenants, Codes, and Restrictions (CC&Rs), or other means acceptable to the City of Irwindale Community Development Department Manager.

- The proposed warehouse shall be constructed with electrical conduits provided to each dock door in order to accommodate future electric charging for trucks to plug-in should future technology allowing trucks to operate partially on electricity become available.
- At least five percent of all vehicle parking spaces shall include EV charging stations. Further, electrical hookups to plug in any onboard auxiliary equipment shall be provided for Project trucks. Electrical panels shall be appropriately sized to allow for future expanded use.
- The majority of all loading/unloading docks and trailer spaces shall be equipped with electrical hookups for trucks with transport refrigeration units or auxiliary power units.
- Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel

trucks to restrict idling to no more than five minutes; and 3) telephone numbers of the building facilities manager and CARB to report violations.

- Locate any check-in points for trucks well inside the Project site to ensure that there are no trucks queuing outside of the facility.
- Ensure that truck traffic within the Project site is located away from the eastern property line (the property line closest to sensitive receptors) to the maximum extent possible.
- The Project site is 205 meters (673 feet) from the nearest sensitive receptors at the nearest residences. Establish a buffer zone of at least 300 meters (984 feet) between truck loading zones/docks and the nearest sensitive receptors to the east.
- Restrict overnight parking in the residential communities to the east of the Project and establish overnight parking within the Project site where trucks can be stored overnight.
- All service equipment (i.e., forklifts) used within the site shall be electric or compressed natural gas-powered.
- In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, CARB regulations, and importance of not parking in residential areas. Tenants shall be notified about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel-fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the project vicinity; 4) access to alternative fueling stations proximate to the site that supply compressed natural gas; and 5) the United States Environmental Protection Agency's SmartWay program.
- There shall be provisions for preferential parking for carpoolers and vanpools.

Even with implementation of CARB and SCAQMD recommendations in mitigation measure AQ-1, **Project-related heavy-duty truck travel would result in SCAQMD daily significance thresholds being exceeded.** This results in a cumulatively considerable net increase of NOx (an O3 precursor), for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

While California state strategies such as the Governor's Sustainable Freight Action Plan, CARB's AB 32 Scoping Plan, and the Mobile Source Strategy will improve the efficiency and environmental footprint of the urban freight system, including the introduction of zero and near-zero emission vehicles, it is not currently feasible to reduce projected Project emissions to levels below the regional significance thresholds.

The SCAQMD has set its CEQA significance thresholds for NO_X at 10 tons per year (expressed as 55 pounds per day) based on the federal CAA, which defines a major stationary source (in extreme ozone

nonattainment areas such as the SoCAB) as emitting 10 tons per year. The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program[3] was created by the federal CAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based FAAQS. The FAAQS establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts.

As previously stated, NO_X is a precursor-emissions that forms O_3 in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so O_3 may be formed at a distance downwind from the sources. Breathing ground-level O_3 can result health effects that include reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily O_3 concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that O_3 can make asthma symptoms worse and can increase sensitivity to asthma triggers.

Table 3.1-9 shows that a large proportion of the Project's NO_X, emissions are from mobile sources. Under California law, the local and regional districts are primarily responsible for controlling air pollution from all sources except motor vehicles. CARB (a branch of the CalEPA is primarily responsible for controlling pollution from motor vehicles. The air districts must adopt rules to achieve and maintain the SAAQS and FAAQS within their jurisdictions.

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained *(Sierra Club v. County of Fresno [Friant Ranch, L.P.]* [2018] 6 Cal.5th 502, Case No. S219783). As noted above and shown in Table 3.1-9, the Project's operational emissions would exceed the SCAQMD's NO_X, significance thresholds, resulting in an impact. Pursuant to Rule 8.520(f) of the Rules of the California Court, the SCAQMD and the San Joaquin Valley Air Pollution Control District (SJVAPCD) filed amicus curiae briefs in regard to this case. In both briefs, SCAQMD and SJVAPCD provided technical explanations as to why it may not be feasible for a project to relate the expected adverse air quality impacts to likely health consequences. For the reasons set forth by the SCAQMD and SJVAPCD (Appendix B), the Proposed Project's significant air quality impacts currently cannot feasibly be related to likely health consequences. The technical demands for feasibly and accurately relating the adverse air quality impacts to likely health consequences are too high for this Proposed Project at this time. The technical challenges are listed in Appendix B, with the SCAQMD and SJVAPCD amicus briefs providing support on the findings for the Proposed Project.

[3] Code of Federal Regulation (CFR*) [i.e., PSD (40 CFR 52.21, 40* CFR *51.166, 40 CFR 51.165 (b)), Non-attainment NSR (40 CFR 52.24, 40 CFR 51.165, 40 CFR part 51, Appendix S)*

Therefore, for the reasons set forth in Appendix B, it is not currently feasible to relate the Proposed Project's regional NO_x impacts to likely health consequences. The SCAQMD is responsible for assessing air pollutant impacts regionally, and the potential health consequences from those on a regional basis. The current evaluation on the limitations and uncertainties of existing tools is consistent with SCAQMD findings. Currently available regional modeling tools are not designed to capture changes in pollutant concentrations for this Proposed Project that would be meaningful. This is due in part to a relatively coarse spatial resolution (e.g., greater than 4 x 4 kilometers) which makes it speculative to discern regional Project impacts on air quality.

Localized Operational Significance Analysis

According to the SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project only if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The Proposed Project includes one 528,710-sf warehouse. Therefore, in the case of the Proposed Project, the operational phase LST protocol is applied. Operational LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$.

The nearest sensitive receptors to the Project site are single-family residences located to the east of the site. The nearest residence is approximately 0.13 mile (670 feet/205 meters) distant. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, operational LSTs for receptors located at 200 meters were utilized in this analysis.

The appropriate SRA for the LSTs is the East San Gabriel Valley area (SRA 9) since this area includes the Project site. As described, the SCAQMD has produced lookup tables for projects that disturb one, two and five acres. While the Proposed Project site is ±24.88 acres, the LST threshold value for a five-acre site was employed from the LST lookup tables. This is conservative since the analysis will only account for the dispersion of air pollutants over five acres before reaching sensitive receptors, as opposed to accounting for the dispersion of air pollutants over a greater 24.88-acre area.

For a worst-case scenario assessment, the emissions shown in Table 3.1-10 include all "onsite" project-related stationary (area) sources and 10 percent of the Project-related mobile sources. Considering that the longest weighted trip length used in CalEEMod for the Project is approximately 49.8 miles, 10 percent of this total would represent an onsite travel distance for each car and truck of approximately 2.49 miles; thus, the 10 percent assumption is conservative and would tend to overstate the actual impact.

Table 3.1-10. Operational-Related Emissions Attributable to Project Buildout (Localized Significance Analysis)				
Source	**Pollutant (pounds per day)**			
	NO_2	**CO**	**PM_{10}**	**$PM_{2.5}$**
Onsite Emissions (Summer)	25.97	40.03	13.72	3.81
Onsite Emissions (Winter)	25.32	43.38	13.72	3.81
SCAQMD Localized Significance Threshold	*368.00*	*7,600.00*	*26.00*	*9.00*
Exceed SCAQMD Localized Significance Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.
Notes: Emissions projections account for a trip generation rate and fleet mix identified by KOA 2019.Specifically, KOA estimates the Project generation of 3,459 average vehicle trips daily, 16.2 percent of which would be medium-heavy duty and heavy-heavy duty trucks. . The average trip length is calculated at 49.8 miles, which represents the average distance between the Project site and the Port of Los Angeles/Long Beach, the Project site and the Banning Pass, the Project Site and the San Diego County line, the Project site and the Cajon Pass, and the Project site and downtown Los Angeles.

As seen in Table 3.1-10, the emissions of these pollutants on the peak day of operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, **significant impacts would not occur concerning LSTs during operational activities.**

Impact 3.1.1 Conflict with Applicable Air Quality Plan

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

2016 Air Quality Management Plan

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the FAAQS and SAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project site is located within the SoCAB, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SoCAB is in nonattainment. In order to reduce such emissions, the SCAQMD drafted the 2016 AQMP. The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, CARB, SCAG, and the USEPA. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2016 RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. (SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.) The Project is subject to the SCAQMD's AQMP.

According to the SCAQMD, in order to determine consistency with SCAQMD's air quality planning two main criteria must be addressed.

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new air quality violations?

As shown in Table 3.1-9, the Proposed Project would result in emissions exceeding the SCAQMD regional NO_X threshold during operations. As previously discussed, the predominate source of NO_x emissions would be due to mobile sources, mainly that of heavy-duty trucks. Mobile emission cannot be regulated by the City. Therefore, the Proposed Project would have the potential to cause or affect a violation of the ambient air quality standards.

b) Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

The Project would result in NO_x emissions beyond the SCAQMD regional significance threshold during operations, it could potentially delay the timely attainment of air quality standards and/or AQMP emission reduction.

The Project would not be consistent with Criterion 1.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the SoCAB focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining Project consistency focuses on whether or not the Proposed Project exceeds the assumptions utilized in preparing the forecasts presented its air quality planning documents. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the 2016 AQMP?

A project is consistent with regional air quality planning efforts in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the SCAQMD air quality plans. Generally, three sources of data form the basis for the projections of air pollutant emissions in Irwindale. Specifically, SCAG's *Growth Management* Chapter of the Regional Comprehensive Plan and Guide (RCPG) provides regional population forecasts for the region and SCAG's *2016 RTP/SCS*

provides socioeconomic forecast projections of regional population growth. The City of Irwindale General Plan is referenced by SCAG in order to assist forecasting future growth in Irwindale.

The Proposed Project is consistent with the land use designation and development density presented in the City of Irwindale General Plan. As previously stated, the Project site is designated by the City of Irwindale General Plan as "Industrial/Business Park", which allows for office, manufacturing, and warehouse uses, including commercial manufacturing, light manufacturing and heavy manufacturing. Furthermore, the Project does not involve any uses that would increase population beyond what is considered in the General Plan and, therefore, would not affect city-wide plans for population growth at the Project site. Thus, the Proposed Project is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the General Plan and RCPG. As a result, the Project would not conflict with the land use assumptions or exceed the population or job growth projections used by SCAQMD to develop the 2016 AQMP. The City of Irwindale's population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City; and these are used by SCAG in all phases of implementation and review. Additionally, as the SCAQMD has incorporated these same projections into their air quality planning efforts, it can be concluded that the Proposed Project would be consistent with the projections. (SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.) Therefore, the Proposed Project would be considered consistent with the population, housing, and employment growth projections utilized in the preparation of SCAQMD's air quality plans. **No impact would occur.**

b) Would the project implement all feasible air quality mitigation measures?

In order to further reduce emissions, the Project would be required to comply with emission reduction measures promulgated by the SCAQMD, such as SCAQMD Rules 402, 403, 1113, and 1403. SCAQMD Rule 402 prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. SCAQMD Rule 403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. SCAQMD 1113 requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories. Rule 1403 specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings. As such, the Proposed Project meets this consistency criterion. **No impact would occur.**

c) Would the project be consistent with the land use planning strategies set forth by SCAQMD air quality planning efforts?

The AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The Proposed Project is consistent with the land use designation and development density presented in the City of Irwindale's General Plan and therefore would not exceed the population or job growth projections used by the SCAQMD to develop the AQMP.

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of a project on air quality. While the Project would be consistent with Criterion 2, resultant operational emissions would exceed regional significance thresholds potentially hindering the region's ability to meet state and federal air quality standards, thereby conflicting with Criterion 1. Thus, the Project would conflict with the SCAQMD 2016 AQMP.

For the reasons described above, **a significant impact would occur.**

Impact 3.1.2 Exposure to Pollutant Concentrations

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

Toxic Air Contaminants

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary TAC of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998. The potential cancer risk from the inhalation of DPM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Accordingly, DPM is the focus of this discussion.

Based on the emission modeling conducted the maximum construction-related annual emissions of $PM_{2.5}$ exhaust, considered a surrogate for DPM, would be 2.02 pounds per day during 2020 construction activities and 1.65 during 2021 construction activities (see Attachment A). $PM_{2.5}$ is considered a surrogate for DPM because more than 90 percent of DPM is less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., $PM_{2.5}$), according to CARB. Most $PM_{2.5}$ derives from combustion, such as use of gasoline and diesel fuels by motor vehicles.) Furthermore, even during the most intense month of construction, emissions of DPM would be generated from different locations on the Project site, rather than a single location, because different types of construction activities

(e.g., demolition, site preparation, building construction) would not occur at the same place at the same time.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the OEHHA, HRAs, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-, 30-, or nine-year exposure period; further, such assessments should be limited to the period/duration of activities associated with the Proposed Project. Consequently, an important consideration is the fact that construction of the Proposed Project is not anticipated to last nine consecutive years, the minimum duration of exposure from which to calculate health risk (Project construction is anticipated to last two years), and that on a day-to-day basis, construction activity generally spans eight hours as opposed to throughout the entire day.

Therefore, considering the relatively low mass of DPM emissions that would be generated during even the most intense season of construction, the fact that construction would not last as long as the minimum duration of exposure from which to calculate health risk, and the relatively short duration that construction activities (less than two years) would occur, construction-related TAC emissions would not expose sensitive receptors to substantial amounts of air toxics.

Furthermore, the Project has been evaluated against the SCAQMD's LSTs for construction. As previously stated, LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative and can be used to assist lead agencies in analyzing localized impacts associated with Project-specific level of proposed projects. The SCAQMD Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. The Environmental Justice Program is divided into three categories, with the LST protocol promulgated under Category I: *Further-Reduced Health Risk*. As shown in Table 3.1-8, the emissions of pollutants on the peak day of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Thus, the fact that onsite Project construction emissions would be generated at rates below the LSTs for NO_x, CO, PM_{10}, and $PM_{2.5}$ demonstrates that the Project would likely not adversely impact the neighboring community to the east.

Operational Air Contaminants

Operation of the Proposed Project would result in the development of substantial sources of air toxins. The Project includes a warehouse facility that would that would be utilized by heavy- and medium-duty trucks. DPM from trucks idling and accessing the site would be a major source of operational air contaminants. An HRA has been prepared for this Project (see Appendix C). The following discussion is based on this HRA.

Project Health Risk Assessment

CARB identified DPM as a TAC in 1998. Mobile sources (including trucks, buses, automobiles, trains, ships, and farm equipment) are by far the largest source of diesel emissions. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Diesel exhaust is composed of two phases, either gas or particulate – both contribute to the risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particulate phase has many different types that can be classified by size or composition. The sizes of diesel particulates of greatest health concern are fine and ultrafine particles. These particles may be composed of elemental carbon with adsorbed[4] compounds such as organics, sulfates, nitrates, metals, and other trace elements. Diesel exhaust is emitted from a broad range of on- and off-road diesel engines. As the Project would accommodate daily visits from heavy-duty diesel trucks during operations, an analysis of DPM was performed using the USEPA-approved AERMOD model.

Non-Carcinogenic Hazards

The significance thresholds for TAC exposure requires an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer impacts is similar to the procedure for chronic non-cancer impacts.

An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the REL. The highest maximum chronic and acute hazard index at a sensitive receptor associated with DPM emissions from the Project would be 0.0013 and 0.0347, respectively. This concentration would occur at the residential neighborhood located east of the Project site, specifically at the western cul-de-sac of Benbow Street. Therefore, non-carcinogenic hazards are calculated to be within acceptable limits.

Carcinogenic Risk

Vehicle DPM emissions were estimated using emission factors for course particulate matter less than 10 microns in diameter (PM_{10}) generated with the 2017 version of the EMission FACtor model (EMFAC) developed by CARB. EMFAC 2017 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions from on-road mobile sources. The most recent version of this model, EMFAC 2017, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled by speed, and number of starts per day. The most important improvement in EMFAC 2017 is the integration of the new data and methods to estimate

[4]This term is specifically used for gases.

emissions from diesel trucks and buses. The model includes the emissions benefits of the truck and bus rule and the previously adopted rules for other on-road diesel equipment.

For this Project, annual average PM_{10} emission factors were generated by running EMFAC 2017 for vehicles in the SoCAB within Los Angeles County. EMFAC generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of vehicle speed, temperature, and relative humidity. The model was run for speeds traveled on and within the vicinity of the Project site. The vehicle travel speeds for each segment modeled are summarized below.

- Idling (15 minutes per truck) – onsite loading/unloading; and
- five miles per hour – onsite vehicle movement including driving and maneuvering; and
- 35 miles per hour – offsite vehicle movement including driving and maneuvering.

The average PM_{10} emission factors for heavy trucks were calculated based on the annual average emission factors for various exposure periods associated with assumptions for evaluating exposure over three different periods (i.e., 70-, 30-, and nine-year exposure scenarios). The posted speed limit on Los Angeles Street is 40 miles per hour. The average PM_{10} emission factor for heavy trucks traveling 35 miles per hour is greater than those traveling 40 miles per hour. Thus, the use of an emissions factor for trucks traveling 35 miles per hour is conservative.

Based on the AERMOD outputs, the expected annual average diesel PM_{10} emission concentrations at the most exposed sensitive receptor (located at the western cul-de-sac of Benbow Street) resulting from operation of the Project (557 daily heavy-duty truck trips) would be 0.007 $\mu g/m^3$ at the greatest.

Cancer risk calculations for residences are based on 70-, 30-, and nine-year exposure periods while schools are based on a nine-year exposure period. The calculated carcinogenic risk at the sensitive receptor as a result of the Project is depicted in Table 3.1-11.

Table 3.1-11. Maximum Operational Health Risk at the Project Vicinity Residential Neighborhoods

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds SCAQMD Significance Threshold?
Residences to the East with Highest Pollutant Concentrations			
70-Year Exposure	3.24	*10*	**No**
30-Year Exposure	2.73	*10*	**No**
9-Year Exposure	1.96	*10*	**No**
Walnut Elementary School to the Northeast			
9-Year Exposure	1.02	*10*	**No**

Source: Refer to Attachment B for Model Data Outputs.
Notes: The elementary school is only analyzed for nine years of exposure as students are not expected to attend school beyond those years.

In conclusion, non-carcinogenic hazards resulting from the Proposed Project are calculated to be within acceptable limits. Additionally, impacts related to cancer risk from heavy trucks would be less than significant at the nearest residences and nearest school. Therefore, impacts related to health risk from the Project would be **less than significant.**

Naturally Occurring Asbestos

Another potential air quality issue associated with construction-related activities is the airborne entrainment of asbestos due to the disturbance of naturally-occurring asbestos-containing soils. The Proposed Project is not located within an area designated by the State of California as likely to contain naturally-occurring asbestos (Department of Conservation [DOC] 2000). As a result, construction-related activities would not be anticipated to result in increased exposure of sensitive land uses to asbestos. Impacts would be **less than significant**.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Project vicinity have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The analysis prepared for CO attainment in the SCAQMD's *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County can be used to demonstrate the potential for CO exceedances. The SCAQMD CO hot spot analysis was conducted for four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The busiest intersection evaluated had a traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the level of service (LOS) in the vicinity of this intersection and found it to be LOS E at peak morning traffic and LOS F at peak afternoon traffic. Even with the inefficient LOS and volume of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992).

According to the Traffic Study prepared for the Project (KOA 2019), the Project is anticipated to generate 3,459 daily trips on average. Because the Proposed Project would not increase traffic volumes at any intersection to more than 100,000 vehicles per day, there is no likelihood of the Project traffic exceeding CO values. **No impact would occur.**

For the reasons described above, impacts related to pollutant concentrations exposure would be **less than significant.**

Impact 3.1.3 Odor Emissions

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

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

According to the SCAQMD, land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified by the SCAQMD as being associated with odors.

For these reasons, **no impact would occur.**

3.1.6 Cumulative Impacts

Impact 3.1.4 Cumulative Increase of Criteria Pollutant for Which the Project Region is Nonattainment

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

The cumulative setting for air quality includes the City of Irwindale and the SoCAB. The SoCAB is designated as a nonattainment area for state standards of O_3, PM_{10}, and $PM_{2.5}$. The region is also designated as a nonattainment area for federal standards of O_3 and $PM_{2.5}$ (CARB 2018a). Cumulative growth in population, vehicle use, and industrial activity could inhibit efforts to improve regional air quality and attain the ambient air quality standards. Thus, the setting for this cumulative analysis consists of the SoCAB and associated growth and development anticipated in the air basin.

The SCAQMD's approach to assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and CCAAs. As discussed earlier, the Proposed Project would potentially conflict with the 2016 AQMP, which is intended to bring the SoCAB into attainment for all criteria pollutants, since projected daily emissions of NO_x would exceed SCAQMD regional thresholds. On December 12, 2008 the CARB adopted Resolution 08-43, which limits NO_x, PM_{10} and $PM_{2.5}$ emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order (EO) R-09-010 was adopted that codified Resolution 08- 43 into Section 2025, title 13 of the California Code of Regulations (CCR). This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a onetime per year three-day pass for trucks registered outside of California.

In addition, the SCAQMD recommends that any given project's potential contribution to cumulative impacts be assessed using the same significance criteria as for project-specific impacts. Therefore, individual projects that do not generate operational or construction emissions that exceed the SCAQMD's daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the air basin is in nonattainment, and therefore would not be considered to have a significant, adverse air quality impact. Conversely, individual Project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, the Project would exceed the applicable SCAQMD regional thresholds for operational-source NOx emissions. As such, the **Project would be considered cumulatively considerable in terms of its effect on regional air quality.**

3.1.7 Mitigation Measures

The Proposed Project would result in emissions exceeding the SCAQMD regional NOx threshold during operations. Therefore, the Proposed Project would have the potential to cause or affect a violation of the ambient air quality standards. The Proposed Project has the potential to result in a cumulatively

considerable net increase of a criteria pollutant (NOx) for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

The following air pollutant reduction measures shall be incorporated during Project operations:

AQ-1: Prior to the certificate of occupancy issuance, the Project Applicant shall demonstrate to the satisfaction of the City of Irwindale Community Development Department Manager that the following measures would be implemented during Project operations. These measures shall be enforced and maintained through Covenants, Codes, and Restrictions (CC&Rs), or other means acceptable to the City of Irwindale Community Development Department Manager.

- The proposed warehouse shall be constructed with the appropriate infrastructure to facilitate sufficient electric charging for trucks to plug-in in anticipation of future technology allowing trucks to operate partially on electricity.
- At least five percent of all vehicle parking spaces shall include rough-in of electrical conduit for future EV charging stations. Further, provisions for future electrical hookups to plug in any onboard auxiliary equipment shall be provided for Project trucks at each dock door location. Electrical panels shall be appropriately sized to allow for future expanded use.
- The majority of all loading/unloading docks and trailer spaces shall be equipped with electrical hookups for trucks with transport refrigeration units (TRUs) or auxiliary power units (APUs). Rough-in of electrical conduits for future hookups shall meet this requirement until a tenant utilizes trucks with TRUs or APUs. Once any tenant utilizing trucks with TRUs or APUs starts to operate, electrical hookups shall be provided.
- Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than five minutes; and 3) telephone numbers of the building facilities manager and CARB to report violations.
- Locate any check-in points for trucks a minimum of 150 feet inside the Project site to reduce the potential for trucks queuing outside of the facility.
- All dock doors and truck loading spaces shall be located either on the north side or west side of the building in order to encourage truck traffic within the Project site is located away from the eastern property line (the property line closest to sensitive receptors) to the maximum extent possible.
- The Project site is 205 meters (673 feet) from the nearest sensitive receptors at the nearest residences. Establish a buffer zone of at least 300 meters (800 feet) between truck loading zones/docks and the nearest sensitive receptors to the east.

- Restrict overnight parking in the residential communities to the east of the Project. Any lease for the site shall not restrict overnight parking within the Project site where trucks can be stored overnight.
- All service equipment (i.e., forklifts) used within the site shall be electric or compressed natural gas-powered (propane).
- In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, CARB regulations, and importance of not parking in residential areas. Tenants shall be notified about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel-fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the project vicinity; 4) access to alternative fueling stations proximate to the site that supply compressed natural gas; and 5) the United States Environmental Protection Agency's SmartWay program.
- There shall be provisions for preferential parking for carpoolers and vanpools.

3.1.8 Level of Significance After Mitigation

Significant and unavoidable Project and cumulative impact from criteria pollutant (NOx) emissions. Impacts associated with potential exposure of sensitive receptors to substantial pollutant concentrations and potential odors affecting a substantial number of people are less than significant. Impacts related to health risk from the Project would be less than significant.

3.2 Cultural Resources

This section considers and evaluates the potential impacts of the proposed Project on historical, cultural, and paleontological resources. Cultural resources are defined as prehistoric and historic sites, structures, and districts or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, or religious reasons.

3.2.1 Introduction

Information in this section is drawn from a Historic Resources Inventory Report (Dudek 2019) for the Project (Appendix D). In accordance with (CEQA) Guidelines Section 15064.5(a)(2)–(3), the subject property was evaluated for eligibility for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), and City of Los Angeles Historic-Cultural Monument (HCM) eligibility and integrity requirements. The study involved completion of a California Historical Resources Information System (CHRIS) records search, a pedestrian survey of the proposed Project site, and evaluation of buildings and structures over 45 years of age located on the property for historical significance. The significance evaluation included conducting archival and building development research for each property; outreach with local libraries, historical societies, and advocacy groups; and completion of a historic context.

While much of this section includes Native American prehistoric and historic information, Section 3.10 Tribal Cultural Resources of this Draft EIR includes related analysis of the ethnography and significance of the Project area for tribal cultural resources.

3.2.2 Environmental Setting

Historic Context

The following historic context is excerpted from the Historic Inventory Report in Appendix D.

Spanish Period (1769–1822)

Spanish explorers had conducted sailing expeditions along the coast of Southern California as early as the 1500s. Juan Rodríguez Cabrillo stopped in 1542 at present-day San Diego Bay, on an expedition seeking the Northwest Passage. In present-day California, Cabrillo and his crew explored the shorelines of Catalina Island as well as San Pedro and Santa Monica. Much of the present California and Oregon coastline was mapped and recorded by Spanish naval officer Sebastián Vizcaíno from 1602 to 1603. Vizcaino's crew also landed on Catalina Island and at San Pedro and Santa Monica, giving each location its long-standing name. The Spanish crown laid claim to California based on the surveys conducted by Cabrillo and Vizcaíno. The 1769 expedition by Captain Gaspar de Portolá marked the beginning of California settlement. The official historic period began just after the king of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. Portolá and his expedition forces established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California.

In July of 1769, while Portolá was exploring Southern California, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823. Mission San Gabriel Arcángel, in San Gabriel Valley (modern day Alhambra), was established in 1771 as the fourth mission. The original 1771 mission was destroyed in a flash flood and a new mission was built in 1776. El Pueblo de Nuestra Señora la Reina de Los Ángeles, further west, was established in 1781 to support Mission San Gabriel Arcángel. Like many other Spanish occupations, the mission used Spanish military forces to compel the local Tongva population into the mission's service, baptizing them as neophytes and renaming them the Gabrieliños.

The San Gabriel Mission lands that extended from Los Angeles east as far as San Bernardino de Sena Estancia (1810), and the San Bernardino Valley, including present day Irwindale, would have been under Mission San Gabriel Arcángel control (Dudek 2019).

Mexican Period (1822–1848)

After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dudek 2019).

Though the subject property itself was not claimed in a land grant, Mexican governors established extensive land grants throughout interior California during the Mexican Period, in part to wrest secular control away from the Spanish Missions and to give land as a reward to soldiers in lieu of pension. North of the subject property, Mexican governor Juan Alvarado awarded Rancho El Susa to Luis Arenas and Rancho Azusa de Duarte to Andres Duarte in 1841. Just three years later, Arenas partitioned and sold Rancho El Susa and Arenas' one-third interest in Rancho San Jose to the east, to Englishman and merchant Henry Dalton, and Dalton renamed his acquired lands Rancho Azusa de Dalton. Rancho de la Puente was awarded to John Rowland in 1842; with its original boundary described as extending to Luis Arenas' lands, but in practice extended no further than present-day Ramona Boulevard/San Bernardino Road. All awarded land grants, however, neglected the region in the floodplain of the San Gabriel River, likely due to its rocky and gravelly terrain, which was useless for cattle raising, orchards, or farming (Dudek 2019).

American Period (1848–Present)

The Mexican-American War from 1846 to 1848 ended with Mexico ceding the Alta California lands to the United States, and the establishment of land ownership via court orders and surveys soon followed. In 1849, Gregorio Fraijo came to California from Sonora, Mexico, likely to participate in the Gold Rush. By the Census of 1850, he was working as an "overseer" somewhere in Los Angeles County. According to the Henry Dalton diaries, Fraijo bought land in Rancho Azusa from Henry Dalton and raised barley. In October 1889, Gregorio Fraijo was issued a land patent on present-day Irwindale Avenue between Arrow Highway and Cypress Avenue. Fraijo and his family settled there, supposedly cultivating corn.

The name "Irwindale" first appeared in newspapers as the name for the community in 1896, in conjunction with advertisements for properties to be located near the Southern Pacific "Irwindale Station." Subsequent mentions are for an Irwindale Land and Water Company operating from the Irwindale Post Office and Irwindale's participation in the Azusa-Covina-Glendora Fruit exchange, which controlled all of the lemons and oranges shipped from Irwindale on the Southern Pacific (Dudek 2019).

After the turn of the 19th century, the introduction of and increasing reliance on the automobile drove the need for new, paved roads in Los Angeles County. New construction methods also relied on concrete as building trends turned towards "skyscrapers" and modernist architecture. As a result, construction aggregate, including gravel, crushed rock, and sand, for concrete and road asphalt was in high demand. High quality aggregate was discovered in the San Gabriel River floodplain; however, early transportation equipment was insufficient for transporting loads of heavy rock more than 20 miles west to Los Angeles. As automobiles became more sophisticated and rail spurs were constructed, transporting the aggregate from the Irwindale area became more feasible.

Aggregate from Irwindale was involved in several major projects as Los Angeles architects began to require concrete for Art Deco decoration and large modernist structures, and nearly every major highway or interstate in Southern California. A great deal of the aggregate was also shipped out of the Port of Los Angeles for use in other national projects. From 1923 to the beginning of the Great Depression two thousand train carloads of rock per month originated from Irwindale, serving six companies: Kincaid's Union Rock Company, Pacific Rock & Gravel Company, Reliance Rock Company, Builders Concrete Rock Company, the Consolidated Rock Company and Vulcan Materials. .

A response to the major Los Angeles floods in 1939, the future of aggregate in San Gabriel River floodplain was changed when the U.S. Army Corps of Engineers began a flood control project, the Santa Fe Dam, in 1941. The dam was completed in 1949, and as a result, more development of the San Gabriel River valley could be safely allowed. More mining companies began to occupy the river basin, creating the 17 large pits for which the area is now known. These include companies such as Vulcan Materials, Hanson Aggregate, CalMat, Vulcan Reliance (Largo), Reliance sand and Gravel Company, Heavy Duty Shop, and Durbin.

The communities around Irwindale were quickly filling out and the post-World War II years brought a population boom to Southern California as veterans settled in suburban Los Angeles. Towns such as west Azusa, West Covina, Duarte, and Baldwin Park threatened to annex Irwindale, which was ideal for aggregate mining due to its unincorporated status. With West Covina and Duarte drafting annexation papers, the City of Irwindale incorporated in 1957, the 56th incorporated city in Los Angeles County.

In 1965, at the current location of the MillerCoors brewery, the San Gabriel Valley Speedway (also called the 605 Speedway) opened. Other car racing venues also operated in the 1960s and 1970s including the Irwindale Raceway (also Irwindale Speedway) at Irwindale Avenue between Foothill Boulevard and Arrow Highway, and the San Gabriel Drag Strip. The Speedway was closed in 1977, and the MillerCoors brewery took over the location for their 220-acre brewery, which began operations in 1980.

The 1990s were characterized by City of Irwindale's efforts to reclaim its abandoned mining pits for development. Beginning in 1990, the City of Irwindale called for filling in inactive mining pits. A report

indicated that over 50% of the city's non-public lands were occupied by mining operations. In 1996, a reclaimed quarry became home to the Toyota Speedway, successor to the Irwindale Raceway a drag racing strip from the 1960s and 1970s. Irwindale Business Center is on 107 acres of reclaimed mining pit, opened in 2001. Large gravel mining operations are still active in Irwindale, however and the city retains many of its original mines (Dudek 2019).

Project Area History

The City of Irwindale has long been an industrial community due to the presence of the existing large-scale mining operations and heavy manufacturing businesses. Contributing to Irwindale's image as an industrial town is the large number of open yard businesses found in the City. The majority of the developable land in the City is zoned M-2, including many of the City's quarry sites and landfills which date back around 100 years.

In 1946, Henry Nagy and Arthur Hintz founded West Allis Concrete Products in West Allis, Wisconsin. In 1953, Nagy purchased the equipment and patents to a precast concrete manufacturing machine called a Hollowcore extruder. The Hollowcore extruder was capable of producing new hollow-core precast concrete product that allowed a manufacturer to produce long spans of unbroken precast concrete slabs, which Nagy named "Spancrete." Nagy's Spancrete product and success inspired several Spancrete franchises across the US.

One such exclusive Spancrete franchise went as Arizona Sand & Rock Company. The Arizona Sand & Rock Company based in Phoenix, founded in 1927, became a subsidiary of California Portland Cement Company in 1960 to manufacture pre-stressed concrete out of Phoenix. In 1963, Arizona Sand & Rock Company won the exclusive franchise for manufacturing Spancrete products. After producing Spancrete in Phoenix for a few years, the Arizona Sand & Rock Company, under Conrock, opened a California Spancrete plant in Irwindale called "Spancrete of California" (Dudek 2019). The site proceeded as Spancrete of California for many years.

From 1967 until 2017, there have been several ownership changes, but the operations have remained the same. In 1999, Hanson Spancrete Pacific purchased the Irwindale Spancrete of California plant, and continued to manufacture hollow core precast concrete until 2010. In 2010, there is a brief period where the owner is listed as Heidelberg Cement group, then Clark Pacific is listed as owner from 2013 to 2017 (Leymaster 2018).

The property has been unoccupied since 2017. The current Project proponent, Duke Realty, approached the City in 2018 with plans for an approximately 528,710 square foot speculative concrete tilt-up building on the site.

Known Cultural Resources in the Area

A goal of the 2019 Dudek report was to determine if cultural resources were present in or adjacent to the Project area and assess the sensitivity of the Project area for undiscovered or buried cultural resources.

The study involved completion of a CHRIS records search, a pedestrian survey of the proposed Project site, and evaluation of buildings and structures over 45 years of age located on the property for historical

significance. The significance evaluation included conducting archival and building development research for each property; outreach with local libraries, historical societies, and advocacy groups; and completion of a historic context.

Dudek evaluated the Project site for historical significance and found that it does not appear eligible for inclusion in the NRHP, CRHR, City of Los Angeles HCM, or local register (6Z) due to a lack of significant historical associations and integrity. The buildings and structures on the property are therefore not considered historical resources for the purposes of CEQA. As such, the proposed Project would have no impact on historical built environment resources for the purposes of CEQA.

No archaeological resources were identified within the proposed Project site as a result of the CHRIS records search. No specific archaeological resources or sensitivity concerns were identified by any sources consulted.

3.2.3 Regulatory Setting

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) requires that the federal government list significant historic resources on the NRHP, which is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

Structures, sites, buildings, districts, and objects over 50 years of age can be listed in the NRHP as significant historic resources. However, properties under 50 years of age that are of exceptional importance or are contributors to a historic district can also be included in the NRHP. The criteria for listing in the NRHP include resources that:

a) Are associated with events that have made a significant contribution to the broad patterns of history;

b) Are associated with the lives of persons significant in our past;

c) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d) Have yielded or may likely yield information important in prehistory or history.

State

California Register of Historical Resources (CRHR)

Under CEQA, public agencies must consider the effects of their actions on both historical resources and unique archaeological resources. Pursuant to Public Resources Code (PRC) Section 21084.1, a "project that

may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Historical resource is a term with a defined statutory meaning (PRC Section 21084.1; determining significant impacts to historical and archaeological resources is described in CEQA Guidelines Section 15064.5[a], [b]). Under CEQA Guidelines Section 15064.5(a), historical resources include the following:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (PRC Section 5024.1).
- A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g), will 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 a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources (PRC Section 5024.1), including the following:

  a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
  b) Is associated with the lives of persons important in our past;
  c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
  d) Has yielded, or may be likely to yield, information important in prehistory or history.

  The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in a historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Historic resources are usually 45 years old or older and must meet at least one of the criteria for listing in the CRHR, described above (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be historical resources for purposes of CEQA

unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and California Code of Regulations (CCR), Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

For historic structures, CEQA Guidelines Section 15064.5(b)(3) indicates that a project which follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) is considered as mitigating impacts to a less than significant level.

As noted above, CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. PRC Section 21083.2(g) states:

> "Unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> - Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
> - Has a special and particular quality such as being the oldest of its type or the best available example of its type.
> - Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Treatment options under PRC Section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a unique archaeological resource).

Section 7050.5(b) of the California Health and Safety Code specifies protocol when human remains are discovered, as follows:

> *In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.*

CEQA Guidelines Section 15064.5(e) requires that excavation activities stop whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner

determines that the remains are those of Native Americans, the Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the NAHC. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. Pursuant to Section 15064.5(f), these provisions should include "an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place."

Paleontological resources are classified as nonrenewable scientific resources. PRC Section 5097.5 et seq. makes it a misdemeanor for anyone to knowingly disturb any archaeological, paleontological, or historical features situated on public lands. No state or local agencies have specific jurisdiction over paleontological resources. No state or local agency requires a paleontological collecting permit to allow for the recovery of fossil remains discovered as a result of construction-related earth-moving on state or private land on a project site.

California Health and Safety Code

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (Health and Safety Code Section 7050.5b). PRC Section 5097.98 outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Health and Safety Code Section 7050.5c). The NAHC would notify the most likely descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Local

City of Irwindale Resolution 2009-60-2418

In 2009, the City of Irwindale Council members adopted a resolution establishing a local official register of historic resources and adopting two resources to be immediately placed on the local register. Section 3 of *Resolution No. 2009-60-2418: A Resolution of the City Council of the City of Irwindale to Establish a Local Official Register of Historic resources and to Include Our Lady of Guadalupe Catholic Mission, located at*

16233 Arrow Highway (APN 8619-012-909), and El Divino Salvador Presbyterian Church, Located at 5116 Irwindale Avenue (APN 8417-029-008) On Said Register elaborates on the adopted policies to establish a local official register of historic places:

> Criteria for Listing on the Official Register of Historic Resources. A building or structure shall be designated a historic building if the City Council finds one or more conditions (including but not limited to the following) exist with reference to such building or structure:
>
> A. The building or structure proposed for designation is particularly representative of a distinct historical period, type, style, region or way of life.
> B. The building or structure was connected with someone renowned, important, or a local personality.
> C. The building or structure is connected with a business or use which was once common but is now rare.
> D. The building or structure represents the work of a master builder, engineer, designer, and artist or architect whose individual genius influenced his/ her age.
> E. The building or structure is the site of an important historic event or is associated with events that have made a meaningful contribution to the nation, state or city.
> F. The building or structure exemplifies a particular architectural style.
> G. The building or structure exemplifies the best remaining architectural type of a neighborhood.
> H. The construction materials or engineering methods used in the building or structure embody elements of outstanding attention to architectural or engineering design, detail, material or craftsmanship.

City of Irwindale General Plan

Programs within the Resources Management Element relevant to cultural/historic resources include the following:

> Cultural Awareness. A cornerstone of this program will be the identification of a site/location that may be used for the storage and collection of artifacts, photographs, books, and displays. The City will cooperate with local organizations (such as the local historical society, Chamber of Commerce, etc.) and individuals to acquire resource materials concerning local history and culture. These materials include books, photographs, artifacts, furniture, etc., that may be displayed in a future City museum. The City will continue to support cultural resource conservation and preservation efforts in Irwindale.
>
> Cultural Resource Management. Should archaeological or paleontological resources be encountered during excavation and grading activities, all work would cease until appropriate salvage measures are established. Appendix K of the CEQA Guidelines shall be followed for excavation monitoring and salvage work that may be necessary. Salvage and preservation efforts will be undertaken pursuant to Appendix K requirements outlined in CEQA.
>
> Design Guidelines and Review. The City shall continue to implement its current design review procedures. The purpose of the design review process is to ensure that building design, architecture, and site layouts are compatible with surrounding development and consistent with the Commercial and Industrial Development Design Guidelines. The design review process is an

important component of development review. This process may be used to consider a potential development's impact on the architectural integrity of historically significant structures and sites.

Environmental Review. The City shall continue to evaluate the environmental impacts of new development and identify applicable mitigation measures prior to development approval, as required by the CEQA. Environmental review shall be provided for those projects that will have a potential to adversely affect the environment. Issue areas that will be addressed in the environmental analysis related to resource issues include: air quality, water and hydrology, plant life, animal life, natural resources, energy, aesthetics, recreation, and cultural resources. In compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of any mitigation measures.

Historic Building Code. The City will investigate the feasibility of adopting alternate building code standards for historic structures, as authorized by the State Historical Building Code. The initial step will require City staff to amend the development code to include provisions for the maintenance, rehabilitation, and preservation of historic structures. Potential candidates include those historic resources described herein.

3.2.4 Impact Analysis

California Environmental Quality Act (CEQA) Guidelines Appendix G states that a project may have a significant effect on cultural resources if any of the following would occur:

1. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

2. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

3. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact 3.2.1: Potential for Impacts to Historical Resources

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

As a result of the background research, field survey, and property significance evaluations, buildings at the proposed Project site were evaluated and found not eligible for the NRHP, CRHR, or as a City of Irwindale Historic Resource, due to a lack of significant historical associations, architectural merit, and compromised integrity. Archival research did not identify direct associations between the current subject property and events that have made a significant contribution to the broad patterns of local or regional history. There are no known associations with any important figures in national, state, or local history. The buildings at the Project site do not possess high artistic value, and archival research did not indicate that they might be part of a significant or distinguishable entity that may lack individual distinction. The Project site is not eligible as a contributor to any existing historic district. There is no evidence to suggest that the Project site has the potential to yield information important to national, state, or local history, nor is it associated with a known archaeological resource (Dudek 2019).

For these reasons, **no impact would occur.**

Impact 3.2.2: Potential for Impacts to Archaeological Resources

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

No archaeological resources or sensitivity concerns were identified within the Project site as a result of the CHRIS records search and other records sources. However, it is possible that intact archaeological deposits are present at subsurface levels. AB 52 consultation with the Gabriel Band of Mission Indians—Kizh Nation has indicated the project site is located within the ancestral territory of the Gabrieleno. The project site's proximity to the San Gabriel River and associated traditional Native American trade routes makes it sensitive for archaeological resources and the potential for discovery of buried cultural resources in native soils at the site. Thus, significant impacts may occur from the discovery of unknown resources during ground disturbing activities from Project construction. Implementation of mitigation measure **CUL-1** would include an opportunity for tribal participation in monitoring of subsurface excavations.

For these reasons, impacts to unknown archaeological resources would be **less than significant with mitigation.**

Impact 3.2.3: Potential for Impacts to Human Remains

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

No human remains or dedicated cemeteries were identified during the background research, field survey, and property significance evaluation. However, compliance with California Health and Safety Code Section 7050.5 governing the discovery, notification, disposition and treatment of discovered human remains and related grave goods will be adhered to during Project construction. The discovery of human remains would require handling in accordance with PRC 5097.98, which states that in the event that human remains are discovered during construction, construction activity shall be halted and the area shall be protected until consultation and treatment can occur as prescribed by law. In the unexpected event that human remains are unearthed during construction activities, impacts would be potentially significant, and as such, implementation of mitigation measure **CUL-2** is required.

For these reasons, impacts would be **less than significant with mitigation.**

3.2.5 Cumulative Impacts

It is possible that unknown human remains, archaeological, historical, tribal cultural, and/or paleontological resources could be discovered during earthmoving or grading in the Project area. However, mitigation measures associated with monitoring during project-related earthmoving and grading would reduce any project related incremental contribution to possible cumulative impacts to less than significant. Moreover, it can be anticipated that agencies with jurisdiction over related area projects

would impose mitigation measures similar to those imposed on the proposed Project. As such, cumulative impacts to cultural resources would be **less than significant with mitigation.**

3.2.6 Mitigation Measures

CUL-1: Archaeological Monitoring and Accidental Discovery. Prior to issuance of grading permits, the Applicant shall retain a qualified archaeological monitor and, if interested pending conclusion of the tribal resources consultation, a Native American monitor. Monitoring by a qualified archaeologist should be conducted under the supervision of a Los Angeles County Certified archaeologist and, if interested, by a Native American monitor from one of the Gabrieleno groups recognized by the Native American Heritage Commission (NAHC). The monitor shall be present on the Project site during ground-disturbing activities to monitor rough and finish grading, excavation, and other ground-disturbing activities in any native soils (i.e. non-previously engineered soils). Because no cultural resources were identified on the Project site, archaeological monitors are not required to be present on a full-time basis but shall spot check ground-disturbing activities to ensure that no cultural resources are impacted during construction activities. The precise timing of monitoring activities shall be consistent with the provisions established in the Monitoring Plan.

The Monitoring Plan shall be prepared by a qualified archaeologist and shall be reviewed by the Community Development Manager/City Planner, or designee. The Monitoring Plan should include at a minimum: (1) a list of personnel involved in the monitoring activities; (2) a description of how the monitoring shall occur; (3) a description of the frequency of monitoring (e.g., full-time, part-time, spot checking); (4) a description of what resources may be encountered; (5) a description of circumstances that would result in the halting of work at the project site (e.g., what is considered a "significant" archaeological site); (6) a description of procedures for halting work on site and notification procedures; and (7) a description of monitoring reporting procedures. If any significant historical resources, archaeological resources, tribal cultural resources, or human remains are found during monitoring, work shall be stopped within the immediate vicinity (precise area to be determined by the archaeologist in the field) of the resource until such time as the resource can be evaluated by an archaeologist. If the deposits are culturally significant, adverse effects on the deposits must be avoided, or such effects must be mitigated. Mitigation can include, but is not necessarily limited to: leaving the deposits in place, excavation of the deposit in accordance with a data recovery plan (see CCR Title 4(3) Section 5126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; and an interpretive display of recovered archaeological materials at a local school, museum, or library.

Upon completion of all monitoring/mitigation activities, the consulting archaeologist shall submit a monitoring report to the Community Development Manager/City Planner, or designee, and to the South-Central Coastal Information Center summarizing all

monitoring/mitigation activities and confirming that all recommended mitigation measures have been met.

CUL-2: Human Remains. If human remains of any kind are found during construction, the requirements of CEQA Guidelines Section 15064.5(e) and Assembly Bill 2641 shall be followed. According to these requirements, all construction activities must cease immediately, and the Los Angeles County Coroner and a qualified archaeologist must be notified. The Coroner will examine the remains and determine the next appropriate action based on his or her findings. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the MLD to be consulted regarding treatment and/or reburial of the remains. If an MLD cannot be identified, or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to them, the Native American human remains and associated grave goods shall be buried with appropriate dignity on the property in a location not subject to further subsurface disturbance.

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3.3 Energy

This section describes the environmental setting for energy, including the regulatory setting and existing site conditions, the impacts on energy that would result from the proposed Project, and the mitigation measures that would reduce these impacts.

3.3.1 Introduction

Energy consumption is analyzed due to the potential direct and indirect environmental impacts associated with the proposed Project. Such impacts include the depletion of nonrenewable resources (electricity, natural gas, and equipment and automotive fuel) and emissions of pollutants during both Project construction and long-term operation.

3.3.2 Environmental Setting

To better integrate the energy analysis with the rest of the California Environmental Quality Act (CEQA), the Governor's Office of Planning Research has added relevant questions regarding potential energy impacts currently contained in CEQA Guidelines Appendix F to the sample environmental checklist in Appendix G, holding that CEQA-related environmental analysis must quantify energy use during construction and operations, including energy associated with transportation associated with the Project, and also consider the availability of measures to reduce reliance on fossil fuels.

3.3.2.1 Electricity/Natural Gas Services

Southern California Edison (SCE) provides electrical services to Irwindale through State-regulated public utility contracts. SCE, the largest subsidiary of Edison International, is the primary electricity supply company for much of Southern California. It provides 14 million people with electricity across a service territory of approximately 50,000 square miles. SCE has met or exceeded all Renewable Portfolio Standard requirements to date, procuring renewable energy from diverse sources, including biomass, biowaste, geothermal, hydroelectric, solar, and wind. This Standard requires all California utilities to generate 33 percent of their electricity from renewables by 2020, 50 percent of their electricity from renewables by 2030, and 100 percent by 2045 (SCE 2014).

The Southern California Gas Company (SoCalGas) provides natural gas services to the Project area. As the nation's largest natural gas distribution utility, SoCalGas delivers natural gas energy to 21.6 million consumers through 5.9 million meters in more than 500 communities. SoCalGas's service territory encompasses approximately 20,000 square miles throughout Central and Southern California, from Visalia to the Mexican border (SoCalGas 2019).

3.3.2.2 Energy Consumption

Electricity use is measured in kilowatt-hours (kWh), and natural gas use is measured in therms. Vehicle fuel use is typically measured in gallons (e.g. of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh.

The electricity consumption associated with all non-residential uses in Los Angeles County from 2014 to 2018 is shown in Table 3.3-1. As indicated, the demand has decreased since 2014.

Table 3.3-1. Non-Residential Electricity Consumption in Los Angeles County 2014-2018

Year	Non-Residential Electricity Consumption (kilowatt hours)
2018	47,267,108,138
2017	48,089,687,858
2016	48,759,916,535
2015	49,692,361,721
2014	49,193,414,622

Source: California Energy Consumption Data Management System (ECDMS) 2019.

The natural gas consumption associated with all non-residential uses in Los Angeles County from 2014 to 2018 is shown in Table 3.3-2. As indicated, the demand has increased since 2014.

Table 3.3-2. Non-Residential Natural Gas Consumption in Los Angeles County 2014-2018

Year	Non-Residential Natural Gas Consumption (therms)
2018	1,813,661,643
2017	1,840,593,319
2016	1,767,522,497
2015	1,677,088,197
2014	1,715,328,124

Source: ECDMS 2019

Automotive fuel consumption in Los Angeles County from 2015 to 2019 is shown in Table 3.3-3. On-road fuel consumption has decreased between 2015 and 2019, whereas off-road fuel consumption increased in that same time period. For this Project, due to the operational use of diesel heavy-duty trucks, construction fuel use and operational fuel use will be compared to the total fuel consumption in the County.

Table 3.3-3. Automotive Fuel Consumption in Los Angeles County 2015-2019

Year	On-Road Automotive Fuel Consumption (gallons)	Off-Road Equipment Fuel Consumption (gallons)	Total Fuel Consumption (gallons)
2019	4,358,843,709	91,019,018	4,449,862,727
2018	4,447,799,085	88,768,074	4,536,567,159
2017	4,520,489,085	86,429,167	4,606,918,252
2016	4,542,402,544	84,163,500	4,626,566,044

Table 3.3-3. Automotive Fuel Consumption in Los Angeles County 2015-2019

Year	On-Road Automotive Fuel Consumption (gallons)	Off-Road Equipment Fuel Consumption (gallons)	Total Fuel Consumption (gallons)
2015	4,532,265,457	81,060,444	4,613,325,901

Source: California Air Resources Board (CARB) 2014.

3.3.3 Regulatory Setting

California Energy Efficiency Standards for Residential & Nonresidential Buildings (Title 24)

Title 24, California's energy efficiency standards for residential and nonresidential buildings, were established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. California's energy efficiency standards are updated on an approximate three-year cycle. In 2016, the CEC updated Nonresidential Title 24 standards with more stringent requirements. The 2016 standards, which went into effect on January 1, 2017, have substantially reduced the growth in electricity and natural gas use. In December 2018, the CEC released updated standards for 2019 (CEC 2018).

California Green Building Standards

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen also has voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2019. Part 1, the California Administrative Code was effective as of January 2019, whereas parts 2 through 5 and 11 through 12 will become effective on January 1, 2020. The update primarily aims to provide greater clarity and consistency (Division of the State Architect [DSA] 2019).

Senate Bill 1368

On September 29, 2006, Governor Arnold Schwarzenegger signed into law Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006). The law limits long-term investments in baseload generation by the State's utilities to those power plants that meet an Emissions Performance Standard (EPS) jointly established by the CEC and the California Public Utilities Commission (CPUC).

The CEC has designed regulations that:

- Establish a standard for baseload generation owned by or under long-term contract to publicly owned utilities, of 1,100 pounds carbon dioxide per megawatt hour. This would encourage the development of power plants that meet California's growing energy needs while minimizing their emissions of greenhouse gas;
- Require posting of notices of public deliberations by publicly owned utilities on long-term investments on the CEC website. This would facilitate public awareness of utility efforts to meet customer needs for energy over the long term while meeting the State's standards for environmental impact; and
- Establish a public process for determining the compliance of proposed investments with the EPS (Perata, Chapter 598, Statutes of 2006).

Renewable Energy Sources (Renewables Portfolio Standard)

Established in 2002 under SB 1078, and accelerated by SB 107 (2006) and SB 2 (2011), California's Renewables Portfolio Standard (RPS) obligates investor-owned utilities, energy service providers, and community choice aggregators to procure 33 percent of their electricity from renewable energy sources by 2020. Eligible renewable resources are defined in the 2013 RPS to include biodiesel; biomass; hydroelectric and small hydro (30 megawatts or less); Los Angeles Aqueduct hydro power plants; digester gas; fuel cells; geothermal, landfill gas; municipal solid waste; ocean thermal, ocean wave, and tidal current technologies; renewable derived biogas; multi-fuel facilities using renewable fuels; solar photovoltaic; solar thermal electric; wind; and other renewables that may be defined later. Governor Jerry Brown signed SB 350 on October 7, 2015, which expands the RPS by establishing a goal of 60 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal. SB 350 also provides for the transformation of the California Independent System Operator (ISO) into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the California ISO to those markets, pursuant to a specified process.

3.3.4 Impact Analysis

3.3.4.1 Thresholds of Significance

CEQA Guidelines Appendix G states that a project may have a significant effect on the environment if any of the following would occur:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact 3.3.1: Wasteful, Inefficient, or Unnecessary Consumption of Energy

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

The impact analysis focuses on the four sources of energy that are relevant to the Proposed Project: electricity, natural gas, the equipment-fuel necessary for Project construction and fuel necessary for Project operations. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use project. For the purpose of this analysis, the amount of electricity and natural gas estimated to be consumed by the Project is quantified and compared to that consumed by non-residential land uses in Los Angeles County. Similarly, the amount of fuel necessary for Project construction and operations is calculated and compared to that consumed in Los Angeles County.

The analysis of electricity/gas usage is based on California Emissions Estimator Model (CalEEMod) modeling conducted by ECORP Consulting (see Appendix A*)*, which quantifies energy use for Project operations. The amount of operational automotive fuel use was estimated using CARB's EMFAC2014 computer program, which provides projections for typical daily fuel usage in Los Angeles County. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. Energy consumption associated with the construction and operations of the Proposed Project is summarized in Table 3.3-4.

Table 3.3-4. Proposed Project Energy and Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Electricity Consumption[1]	5,868,680 kilowatt-hours	0.012 percent
Natural Gas[1]	95,696 therms	0.005 percent
Automotive Fuel Consumption		
Project Construction[2]	122,069 gallons	0.002 percent
Project Operations[3]	417,189 gallons	0.009 percent

Source: [1]ECORP 2019; [2]Climate Registry 2016; [3]EMFAC2014 (CARB 2014)
Notes: The Project increases in electricity and natural gas consumption are compared with all of the non-residential buildings in Los Angeles County in 2018, the latest data available. The Project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2019.

As shown in Table 3.3-4, the increase in electricity usage as a result of the Project would constitute an approximate 0.012 percent increase in the typical annual electricity consumption attributable to non-residential uses in Los Angeles County. Project increases in natural gas usage across Los Angeles County would also be negligible at 0.005 percent. The Project would adhere to all federal, State, and local requirements for energy efficiency, including the Title 24 standards. The Project would be required to

comply with Title 24 building energy efficiency standards, which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage.

As further indicated in Table 3.3-4, the Project's gasoline fuel consumption during the one-time construction period is estimated to be 122,069 gallons of fuel, which would increase the annual construction-related gasoline fuel use in the county by 0.002 percent. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent State and federal regulations on engine efficiency combined with State regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

As indicated in Table 3.3-4, Project operation is estimated to consume approximately 417,189 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.009 percent. The amount of operational fuel use was estimated using CARB's EMFAC2014 computer program, which provides projections for typical daily fuel usage in Los Angeles County. This analysis conservatively assumes that all of the automobile trips projected to arrive at the Project during operations would be new to Los Angeles County. Further, a liberal approach was taken for vehicle trip estimation to ensure potential impacts due to operational gasoline usage were adequately accounted for. The Project would not result in excessive long-term operational automotive fuel consumption. Fuel consumption associated with vehicle trips generated by the Project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. Furthermore, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

For these reasons, this impact would be **less than significant.**

Impact 3.3.2: Conflict with State or Local Plans

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

The Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. Relevant energy conservation plans specific to Irwindale include the City's General Plan Implementation Element, specifically the Energy Conservation and Building Code Review Program. An overarching goal of these implementation elements is to encourage energy conservation activities and programs throughout the

City. The Project would not conflict or obstruct any local or state plans for renewable energy or energy efficiency.

For these reasons, this impact would be **less than significant.**

3.3.5 Cumulative Impacts

The proposed Project, when considered in combination with existing, approved, proposed, and reasonably foreseeable development in the region, would increase the annual construction-related gasoline fuel use in the county by 0.002 percent and would increase the annual countywide automotive fuel consumption by 0.009 percent. However, as discussed in Impacts 3.3.1 and 3.3.2, the Project's fuel consumption associated with vehicle trips would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. Additionally, because utilities have procedures to plan for system improvements to keep pace with projected regional demand, the Project would not contribute to a significant cumulative impact related to energy efficiency and consumption. Cumulative impacts would be **less than significant.**

3.3.6 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

3.3.7 Level of Significance After Mitigation

Less than significant impact.

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3.4 Greenhouse Gas Emissions

3.4.1 Introduction

This section documents the results of a greenhouse gas (GHG) emissions assessment in the combined Air Quality & Greenhouse Gas Assessment report completed by ECORP for the 13131 Los Angeles Street Industrial Project (Project) in Irwindale, California (Appendix B). GHG-related impacts were assessed in accordance with methodologies recommended by CARB and the SCAQMD, as well as in consideration of the NOP comment letters received from both the SCAQMD and CARB as presented in Appendix A.

3.4.2 Environmental Setting

Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 3.4-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2 (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents ($CO2_2e$), which weight each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect

and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (IPCC 2013).

Table 3.4-1. Greenhouse Gases

Greenhouse Gas	Description
CO_2	Carbon dioxide is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.[1]
CH_4	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH_4 to the atmosphere. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH_4 is about12 years.[2]
N_2O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.[3]

Sources: [1]USEPA 2016a, [2] USEPA 2016b, [3] USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

Sources of Greenhouse Gas Emissions

In July 2018, CARB released the 2018 edition of the California GHG inventory covering calendar year 2016 emissions. In 2016, California emitted 429.4 million gross metric tons of CO_2e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of

California's GHG emissions in 2016, accounting for approximately 41 percent of total GHG emissions in the state. This sector was followed by the industrial sector (23 percent) and the electric power sector including both in- and out-of-state sources (16 percent) (CARB 2018b).

Emissions of CO_2 are byproducts of fossil fuel combustion. CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. Carbon dioxide sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water), respectively, two of the most common processes for removing CO_2 from the atmosphere.

3.4.3 Regulatory Setting

State

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

While dated, this EO remains relevant because a more recent California Appellate Court decision, *Cleveland National Forest Foundation v. San Diego Association of Governments* (November 24, 2014) 231 Cal.App.4th 1056, examined whether it should be viewed as having the equivalent force of a legislative mandate for specific emissions reductions. While the California Supreme Court ruled that the San Diego Association of Governments did not abuse its discretion by declining "to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal, the decision also recognized that the goal of a 40 percent reduction in 1990 GHG levels by 2030 is "widely acknowledged" as a "necessary interim target to ensure that California meets its longer-range goal of reducing greenhouse gas emissions 80 percent below 1990 levels by the year 2050.

Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed AB 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). AB 32 anticipates that the GHG reduction goals will be met, in part, through local government actions. CARB has identified a GHG reduction target of 15 percent from current levels for local governments and notes that successful implementation relies on local governments' land use planning and urban growth decisions.

Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which was re-approved by CARB on August 24, 2011, that outlines measures to meet the 2020 GHG reduction goals. To meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions levels or about 15 percent from today's levels. The Scoping Plan recommends measures for further study and possible state implementation, such as new fuel regulations. It estimates that a reduction of 174 million metric tons of CO_2e (about 191 million U.S. tons) from the transportation, energy, agriculture, and forestry sectors and other sources could be achieved should the State implement all of the measures in the Scoping Plan.

The Scoping Plan is required by AB 32 to be updated at least every five years. The first update to the AB 32 Scoping Plan was approved on May 22, 2014 by CARB. The 2017 Scoping Plan Update was adopted on December 14, 2017. The Scoping Plan Update addresses the 2030 target established by SB 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include: increasing the use of renewable energy in the state, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

Executive Order 8-30-15

On April 20, 2015 Governor Brown signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union, which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2˚C, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the state's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

In October 2015, SB 350 was signed by Governor Edmund (Jerry) Brown, which requires retail sellers and publicly-owned utilities to procure 50 percent of their electricity from renewable resources by 2030. In 2018, SB 100 was signed by Governor Brown, codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

Local

South Coast Air Quality Management District

To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff is convening an ongoing GHG CEQA Significance Threshold Working Group. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that provide input to SCAQMD staff on developing the significance thresholds. On October 8, 2008, the SCAQMD released the *Draft AQMD Staff CEQA GHG Significance Thresholds*. These thresholds have not been finalized and continue to be developed through the working group.

The SCAQMD has not announced when staff is expecting to present a finalized version of its GHG thresholds to the governing board. On September 28, 2010, the SCAQMD recommended a numeric "bright-line" threshold of 10,000 metric tons per year of CO_2e for industrial land use projects. This threshold was developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the

, various utilities such as sanitation and power companies throughout the SoCAB, industry groups, and environmental and professional organizations. The numeric "bright line" was developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provides guidance to CEQA practitioners with regard to determining whether GHG emissions from a proposed industrial land use project are significant.

Southern California Association of Governments

On April 7, 2016, the SCAG Regional Council adopted the *2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by State law to lower regional GHG emissions.

3.4.4 Impact Analysis

3.4.4.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to greenhouse gas emissions if it would:

1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or,

2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

SCAQMD Thresholds

On September 28, 2010, the SCAQMD recommended a numeric, bright-line threshold of 10,000 metric tons of CO_2e annually for industrial land uses. This threshold was developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. The working group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State OPR, CARB, the Attorney General's Office, a variety of city and county planning departments in the SoCAB, various utilities such as sanitation and power companies throughout the basin, industry groups, and environmental and professional organizations. SCAQMD thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provide guidance to CEQA practitioners and lead agencies with regard to determining whether GHG emissions from a proposed project are significant.

For the purposes of this evaluation, the Proposed Project will first be compared to the SCAQMD numeric bright-line threshold of 10,000 metric tons of CO_2e annually for industrial project. The Project is also evaluated for compliance with SCAG's 2016–2040 RTP/SCS, which establishes an overall GHG target for the Project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32.

3.4.4.2 Methodology

GHG-related impacts were assessed in accordance with methodologies recommended by CARB and the SCAQMD, as well as in consideration of the NOP comment letters received from both the SCAQMD and CARB as presented in Appendix A. Where GHG emission quantification was required, emissions were modeled using the CalEEMod, version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction-generated GHG emissions were primarily calculated using CalEEMod model defaults for Los Angeles County. Operational GHG emissions were based on the Project site plans and the estimated traffic trip generation rates and Project fleet mix from KOA (2019). It is noted that the SCAQMD NOP comment letter recommends estimating the Project fleet mix based on 0.64 average daily heavy-duty truck trips per 1,000 sf of proposed industrial warehouse building space. Employing this SCAQMD-recommended metric results in an estimate of 338 heavy-duty truck trips daily (0.64 x 528.710 = 338). However, this analysis is conservatively based on an estimate of 557 heavy-duty truck trips daily (349 three- and four-axle heavy-heavy-duty trucks and 208 two-axle medium-heavy-duty trucks) as provided by KOA.

3.4.4.3 Project Impact Analysis

Impact 3.4.1 Contribution of Greenhouse Gas Emissions

Threshold:	*Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 3.4-2 illustrates the specific construction-generated GHG emissions that would result from construction of the Project.

Table 3.4-2. Construction-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons/ Year)
Construction in 2020	694
Construction in 2021	1,239
Total	**1,933**

Source: CalEEMod version 2016.3.2. Refer to Attachment C for Model Data Outputs.
Notes: Emissions estimates account for the site prep and grading of 24.88 acres along with the demolition of 62,500 sf of buildings.

As shown in Table 3.4-2, Project construction would result in the generation of approximately 1,933 metric tons of CO_2e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. The amortized construction emissions are added to the annual average operational emissions.

Operations

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Long-term operational GHG emissions attributable to the Project are identified in Table 3.4-3 and compared to SCAQMD's interim screening level numeric bright-line threshold of 10,000 metric tons of CO_2e annually. As previously described, operational GHG emissions were based on the Project site plans and the estimated traffic trip generation rates and Project fleet mix from KOA (2019). As previously described, the SCAQMD NOP comment letter recommends estimating the Project fleet mix based on 0.64 average daily heavy-duty truck trips per 1,000 sf of proposed industrial warehouse building space. Employing this SCAQMD-recommended metric results in an estimate of 338 heavy-duty truck trips daily (0.64 x 528.710 = 338). However, this analysis is conservatively based on an estimate of 557 heavy-duty truck trips daily (349 three- and four-axle heavy-heavy-duty trucks and 208 two-axle medium-heavy-duty trucks) as provided by KOA. Consistent with SCAQMD recommendations, in order to more accurately account for the trip distribution patterns of freight trucks, the average trip length is calculated at 49.8 miles, which represents the average distance between the Project site and the Port of Los Angeles/Long

Beach, the Project site and the Banning Pass, the Project Site and the San Diego County line, the Project site and the Cajon Pass, and the Project site and downtown Los Angeles.

Table 3.4-3. Operational-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons/ Year)
Construction Emissions (amortized over the 30-year life of the Project)	64
Area Source Emissions	0
Energy Source Emissions	1,882
Mobile Source Emissions	34,493
Solid Waste Emissions	472
Water Emissions	98
Total Emissions	**37,009**

Source: CalEEMod version 2016.3.2. Refer to Attachment C for Model Data Outputs.

As shown in Table 3.4-3, operational-generated emissions would exceed the SCAQMD's numeric bright-line threshold of 10,000 metric tons of CO_2e annually. A large majority of these emissions would be generated by mobile sources, which is an emission source that cannot be regulated by the City of Irwindale. Additionally, GHG are global pollutants. They can be carried miles away from the original source and have long atmospheric lifetimes compared to that of local pollutants. GHG Emissions do not directly pose a threat to human health but can have numerous indirect effects. As previously stated, GHG emissions have been directly correlate to climate change. This can lead to events such as droughts, heat waves, increased intensity in storm events and rising sea levels. These can result in decrease precipitation, increased wildfires, saltwater infiltration of groundwater tables and decreased crop yields. A reduction of vehicle trips to and from the Proposed Project site would reduce the amount of mobile emissions. Methods of reducing vehicle trips include carpooling, transit, cycling, and pedestrian connections. However, this Project is proposing an industrial warehouse and the reduction of vehicle trips is only feasible for the employees working in the facility, though the majority of traffic trips instigated by the Project would be related to haul truck trips transporting freight.

As stated above, the State of California, along with the SCAQMD, has implemented numerous strategies pertaining to trucks and the reduction of emissions that directly apply to the Project. Urban goods delivery is an essential component of the greater freight system and vital to the urban economy. While urban goods delivery represents a small share of urban traffic, it generates a disproportionate amount of GHG emissions. The State of California promulgates policies designed and implemented to improve the efficiency and environmental footprint of the urban freight system, including the introduction of zero and near-zero emission vehicles—a strategy embedded in the Governor's Sustainable Freight Action Plan as well as CARB's AB 32 Scoping Plan, Statewide Implementation Plan, and Mobile Source Strategy.

Additionally, the Project is proposing an industrial warehouse use in close proximity to the I-605, I-10, and I-210, which are major regional freeway corridors. Further, the I-10 corridor has been identified as a "Major International Trade Highway Route" in the California State Goods Movement Action Plan (2007)

and therefore serves to accommodate existing truck trips along the interstate. The Goods Movement Action Plan is a Statewide initiative to improve and expand California's goods movement industry and infrastructure in a manner which will increase mobility and relieve traffic congestion as well as reduce GHG emissions. The Plan further identifies I-10 (located 2.2 miles south of the Project site and linked to the Project site by the I-605) as a "Priority Corridor" for development towards more efficient goods movement and anticipates that the development of good movement-supporting facilities, such as industrial warehouses like that proposed by the Project, will improve the efficiency of overall goods movement throughout the state, and thus reduce truck-related GHG emissions.

Furthermore, both CARB and the SCAQMD have prepared NOP letters concerning the Proposed Project that contain several mitigation measure recommendations to reduce Project GHG emissions generated by Project operations. The following CARB and SCAQMD mitigation is recommended for Project operations:

GHG-1: Prior to the certificate of occupancy issuance, the Project Applicant shall demonstrate to the satisfaction of the City of Irwindale Community Development Department Manager that the following measures would be implemented during Project operations. These measures shall be enforced and maintained through Covenants, Codes, and Restrictions (CC&Rs), or other means acceptable to the City of Irwindale Community Development Department Manager.

- Maximize use of solar energy, including solar panels.
- Install the maximum possible number of solar energy arrays on the building roof and/or on the Project site to generate solar energy for the facility.
- Maximize the planting of trees in landscaping and parking lots.
- Employ the use of light-colored paving and roofing materials.
- Utilize only Energy Star heating, cooling, and lighting devices and appliances.
- Employ the use of electric or alternatively-fueled sweeper with high-efficiency particulate air (HEPA)filters.

Even with implementation of CARB and SCAQMD recommendations contained in mitigation measure GHG-1, Project-related heavy-duty truck travel would result in the SCAQMD industrial land use significance threshold to be exceeded.

For these reasons, **impacts are significant and unavoidable.**

Impact 3.4.2 Conflict with Applicable GHG Plan, Policy or Regulation

Threshold:	*Would the Project conflict any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

The City of Irwindale does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. However, Irwindale is a member city of the SCAG. SCAG's 2016–2040 RTP/SCS, adopted April 7, 2016, is a long-range visioning plan that balances future mobility and housing

needs with economic, environmental, and public health goals. The RTP/SCS embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders in Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. The RTP/SCS establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035 and establishes an overall GHG target for the region consistent with both the Statewide GHG-reduction targets for 2020 and the post-2020 statewide GHG reduction goals. The 2016 RTP/SCS contains over 4,000 transportation projects, including highway improvements, railroad grade separations, bicycle lanes, new transit hubs, and replacement bridges. These future investments were included in county plans developed by the six-county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal CAA requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and use resources more efficiently. The Proposed Project's consistency with the RTP/SCS goals is analyzed in detail in Table 3.4-4.

Table 3.4-4. Consistency with SCAG's RTP/SCS Goals

SCAG Goals	Compliance with Goal
Goal 1: Align the plan investments and policies with improving regional economic development and competitiveness.	**Not Applicable**: This is not a project-specific policy and is therefore not applicable.
Goal 2: Maximize mobility and accessibility for all people and goods in the region.	**Consisten**t: Improvements to the transportation network in Irwindale are developed and maintained to meet the needs of local and regional transportation and to ensure efficient mobility. A number of regional and local plans and programs are used to guide development and maintenance of transportation networks, including but not limited to: • Caltrans Traffic Impact Studies Guidelines • Caltrans Highway Capacity Manual • SCAG RTP/SCS The Project is proposing an industrial warehouse use in close proximity to I-605, I-10, and I-210, which are major regional freeway corridors. Further, the I-10 corridor has been identified as a "Major International Trade Highway Route" in the California State Goods Movement Action Plan and therefore serves to accommodate existing truck trips along the interstate. The Goods Movement Action Plan is a statewide initiative to improve and expand California's goods movement industry and infrastructure in a manner which will increase mobility and relieve traffic congestion as well as reduce GHG emissions. The Plan further identifies I-10 (located 2.2 miles south of the Project site and linked to the Project site by I-605) as a "Priority Corridor" for development towards more efficient goods movement and anticipates that the development of good movement-supporting facilities, such as industrial warehouses like that proposed by the Project, will improve the efficiency of overall goods movement throughout the state, and thus reduce truck-related GHG emissions.

Table 3.4-4. Consistency with SCAG's RTP/SCS Goals

SCAG Goals	Compliance with Goal
Goal 3: Ensure travel safety and reliability for all people and goods in the region.	**Consistent**: All modes of transit in Irwindale are required to follow safety standards set by corresponding regulatory documents. Pedestrian walkways and bicycle routes must follow safety precautions and standards established by local (e.g., City of Irwindale, County of Los Angeles) and regional (e.g., SCAG, Caltrans) agencies. Roadways for motorists must follow safety standards established for the local and regional plans. The Project is proposing an industrial warehouse use in close proximity to the I-605, I-10, and I-210, which are major regional freeway corridors. Warehouses positioned in close proximity to major freeway corridors are considered goods-movement-supporting facilities, and will improve the efficiency of overall goods movement throughout the state, and thus reduce truck-related GHG emissions.
Goal 4: Preserve and ensure a sustainable regional transportation system.	**Consistent**: All new roadway developments and improvements to the existing transportation network must be assessed with some level of traffic analysis (e.g., traffic assessments, traffic impact studies) to determine how the developments would impact existing traffic capacities and to determine the needs for improving future traffic capacities.
Goal 5: Maximize the productivity of our transportation system.	**Consistent**: The local and regional transportation system would be improved and maintained to encourage efficiency and productivity. The City of Irwindale's Public Works and Utility Department oversees the improvement and maintenance of all aspects of the public right-of-way on an as-needed basis. The City also strives to maximize productivity of the region's public transportation system (e.g., bus, bicycle) for residents, visitors, and workers coming into and out of Irwindale
Goal 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	**Consistent**: The reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development are encouraged through the development of alternative transportation methods, green design techniques for buildings, and other energy-reducing techniques. For example, development projects are required to comply with the provisions of the California Building and Energy Efficiency Standards and the Green Building Standards Code (CALGreen). The City also strives to maximize the protection of the environment and improvement of air quality by encouraging and improving the use of the region's public transportation system (e.g., bus, bicycle) for residents, visitors, and workers coming into and out of Irwindale.
Goal 7: Actively encourage and create incentives for energy efficiency, where possible.	**Not Applicable**: This is not a project-specific policy and is therefore not applicable.
Goal 8: Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	**Consisten**t: See response to RTP/SCS Goal 6.

Table 3.4-4. Consistency with SCAG's RTP/SCS Goals

SCAG Goals	Compliance with Goal
Goal 9: Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	**Consistent**: The City of Irwindale monitors existing and newly constructed roadways and transit routes to determine the adequacy and safety of these systems. Other local and regional agencies (e.g., Los Angeles County Transportation Department, Caltrans, SCAG) work with the City to manage these systems. Security situations involving roadways and evacuations would be addressed in the County of Los Angles emergency management protocols (e.g., Los Angeles County Operational Area Emergency Operations Plan) developed in accordance with the State and federal mandated emergency management regulations.

Implementing SCAG's RTP/SCS will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emission reduction targets. As shown, the Proposed Project would in no way conflict with the stated goals of the RTP/SCS; therefore, the Proposed Project would not interfere with SCAG's ability to achieve the region's year 2020 and post-2020 mobile source GHG reduction targets outlined in the 2016 RTP/SCS, and it can be assumed that regional mobile emissions will decrease in line with the goals of the RTP/SCS. Furthermore, the Proposed Project is not regionally significant per CEQA Guidelines Section 15206 and as such, it would not conflict with the SCAG RTP/SCS targets, since those targets were established and are applicable on a regional level.

The Proposed Project would not conflict with an adopted plan, policy, or regulation pertaining to GHGs. For these reasons, **no impact would occur.**

3.4.5 Cumulative Impacts

Climate change is a global problem. And GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have much longer atmospheric lifetimes of one year to several thousand years that allow them to be dispersed around the globe.

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the Proposed Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As previously discussed, the Proposed Project would not conflict with the 2016 RTP/SCS. As a result, the Project would not conflict with any GHG reduction plans. However, the Project's cumulative contribution of GHG emissions would surpass the SCAQMD significance threshold for industrial land uses.

3.4.6 Mitigation Measures

The following GHG reduction measures shall be incorporated during Project operations:

GHG-1: Prior to the certificate of occupancy issuance, the Project Applicant shall demonstrate to the satisfaction of the City of Irwindale Community Development Department Manager that the following measures would be implemented during Project operations. These measures shall be enforced and maintained through Covenants, Codes, and Restrictions (CC&Rs), or other means acceptable to the City of Irwindale Community Development Department Manager.

- Install solar energy arrays on the building roof and/or on the Project site to generate solar energy for the facility sufficient to meet 20% of the anticipated power usage of a typical shell warehouse facility with ancillary office.
- Employ the use of light-colored (Portland cement concrete) paving and roofing materials.
- Utilize only Energy Star heating, cooling, and lighting devices and appliances.
- Employ the use of electric or alternatively-fueled sweeper with HEPA filters.

3.4.7 Level of Significance After Mitigation

Significant contribution to greenhouse gas emissions in excess of SCAQMD industrial thresholds. Less than significant conflict with adopted plan, policy, or regulation pertaining to GHGs.

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3.5 Hazards And Hazardous Materials

This section describes the environmental and regulatory settings for hazards and hazardous materials including existing site conditions, the hazards and hazardous materials impacts that would result from the proposed Project, and the mitigation measures that would reduce these impacts.

3.5.1 Introduction

3.5.1.1 Hazardous Materials and Waste Defined

Under Title 22 of the California Code of Regulations (CCR), the term *hazardous substance* refers to both hazardous materials and hazardous wastes, and both are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed.

Public health is potentially at risk whenever hazardous materials are or will be used. It is necessary to differentiate between the hazard of these materials and the acceptability of the risk they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to health and public safety is determined by the probability of exposure, in addition to the inherent toxicity of a material.

Factors that can influence the health effects when human beings are exposed to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body), and the individual's unique biological susceptibility.

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (CCR Title 22, Chapter 11, Article 2, Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria. While hazardous substances are regulated by multiple agencies, as described in the Regulatory Framework subsection below, cleanup requirements of hazardous wastes are determined on a case-by-case basis according to the agency with lead jurisdiction over the project.

3.5.1.2 Hazardous Materials Transport

The transportation of hazardous materials in California is subject to various federal, state, and local regulations. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery or the loading of such materials (California Vehicle Code Sections 31602(b) and 32104(a)). The Federal Motor Carrier Safety Administration (FMCSA) has identified the San Gabriel River Freeway (I-605), located approximately 100 feet west of the Project site, as a National Hazardous Materials Route that is designated for the transportation of hazardous materials (FMCSA 2019).

3.5.1.3 Other Hazards

Airport Operations

Airport-related hazards are generally associated with aircraft accidents, particularly during takeoffs and landings. Other airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport.

The closest airport to the proposed Project site is San Gabriel Airport, located approximately 2.6 miles to the southwest. The proposed Project site is not addressed in the airport's land use plan.

Wildland Fire Hazards

A wildfire is an uncontrolled fire spreading through vegetative fuels, posing danger and causing destruction to life and property. Wildfires can occur in undeveloped areas and spread to urban areas where structures and other human development are more concentrated.

Government Code 51175-89 directs the California Department of Forestry and Fire Protection (CAL FIRE) to identify areas of very high fire hazard severity zones within Local Responsibility Areas (LRA). Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on data and models of, potential fuels over a 30 to 50-year time horizon and their associated expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to buildings.

Although the City of Irwindale contains lands designated VHFHSZ, the proposed Project is located within a heavily industrialized area and is not in the immediate vicinity of any natural or wildlife areas. It is labeled in the Irwindale submap as non-VHFHSZ (CAL FIRE 2011).

3.5.2 Environmental Setting

3.5.2.1 Site History

Development of the 24.88-acre Property began in 1967 when the California Portland Cement Company, a manufacturer of cement, ready mix concrete, building and construction supplies, and concrete products began operations. From 1967 until 2017, there have been several ownership changes, but the operations have remained the same. Previous occupants include Spancrete of California, United Ready-Mix Concrete, Hanson Spancrete Pacific Inc., the Heidelberg Cement Group and Clark Pacific. This use took advantage of nearby sand and gravel quarries for source material and convenient access to the San Gabriel Freeway (I-605) for heavy duty truck trips. The property has been unoccupied since 2017.

Two 1,000-gallon underground fuel tanks were installed on site in 1967 and removed in 1986 under the oversight of the Los Angeles County Department of Public Works (DPW). Analytical results from soil samples collected during tank removal activities indicated concentrations of total petroleum hydrocarbons (TPH) ranging from 46.5 parts per million (ppm) to 254.2 ppm. Depth to groundwater was reported at 150 to 175 feet below grade. The DPW issued a No Further Action (NFA) Letter in December 1986 (Leymaster 2018– Appendix E).

Following tank removal activities, a 4,000-gallon dual compartment fuel tank was installed in the former tank excavation area. This tank and the related dispensers and piping were removed in February 2004 under the oversight of the Los Angeles DPW. Soil samples collected beneath the tank and dispensers were below detection limits for TPH as gasoline, TPH as diesel, volatile organic compounds (VOCS), fuel oxygenates and organic lead. Soil samples were not collected along the piping run because the distance was less than 20 feet. The DPW issued an NFA letter in March 2007. Based on this, the former tanks do not represent an environmental concern (Appendix E).

On the surface, the site has largely been cleared of facilities associated with this former use, with the exception of an approximate 20,000 square-foot brick and concrete office building with a flat roof and steel-framed windows and doors at the south end of the Property; a small mobile office is attached at the northeast corner of the building; an approximate 2,883 square-foot office building; and an approximate 9,618 square-foot maintenance building are present to the east of the main building. The vacant site is largely unpaved and has been highly disturbed through decades of industrial manufacturing and heavy truck usage.

3.5.2.2 Site Condition Observations

A Phase I Environmental Site Assessment (ESA) was performed for the proposed Project site by Leymaster Environmental Consulting, LLC in July 2018 (Appendix E). The purpose of the ESA is to provide an assessment concerning environmental conditions as they exist at the Property. This assessment was conducted utilizing generally accepted ESA industry standards in accordance with ASTM E 1527-13, Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process and EPA Final All Appropriate Inquiries (AAI) standard practices.

Results of the ESA include historic research on the underground fuel tanks previously installed and removed onsite and the results of their corresponding soil studies and resolutions. The Property is listed in the HAZNET, LACHMS, NPDES, WDS, WIP, FINDSECHO and CIWQS databases searched by Environmental Data Resources, Inc. (EDR) as part of the ESA. In each case, no substantive information was provided that would indicate a significant environmental threat to the Property. The Property was also included in the SWEEPS, UST and HIST UST databases searched by EDR. Inclusion in these databases is resulting from the former underground storage tanks discussed above; however, the former tanks were determined not to represent an environmental concern (Appendix E).

Additionally, Ambient Environmental Inc. (Ambient) conducted a survey on the Project site to locate and identify accessible interior and exterior building materials for asbestos and painted/coated building components for lead prior to demolition activities. Asbestos content was identified in building material samples including roof felt, vinyl floor tiles, window panels, and drywall. There was no lead detected above 0.06 mg/cm^2 or 600 ppm in any of the building components sampled in the survey (Ambient 2019). However, because asbestos-containing materials (ACM) were found to be present in building materials to be removed, appropriate measures would be implemented during demolition activities to prevent the above hazard impacts from migrating off site. The project applicant shall submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations.

3.5.3 Regulatory Setting

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was established to ensure that wastes are managed in a manner that protects human health and the environment, to reduce or eliminate the amount of waste generated, and to conserve energy and natural resources through waste recycling and recovery. The RCRA gives the EPA the authority to control hazardous waste from generation, transportation, treatment, storage, to disposal. The RCRA also sets forth a framework for the management of non-hazardous solid wastes. The RCRA also enables the EPA to address environmental problems that result from underground tanks storing petroleum and other hazardous substances. In 1984 the Amendments (HSWA) significantly expanded and reinforced RCRA's protective framework. The HSWA created the Land Disposal Restrictions (LDR) program, established the RCRA Corrective Action requirements, specified permitting deadlines for hazardous waste facilities, regulated businesses that generated even small amounts of hazardous waste, and required a nationwide look at the conditions of solid waste landfills (EPA 2019a).

Comprehensive Environmental Response, Compensation, and Liability Act and Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) created a tax on the chemical and petroleum industries and provided a broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. This law established prohibitions and requirements concerning closed and abandoned hazardous wastes sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund for cleanup when no responsible party could be identified. In 1986, SARA amended CERCLA making several important changes and additions. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning hazardous waste sites, required Superfund actions to consider the standards and requirements found in other State and Federal environmental laws and regulations, provided new enforcement authorities and settlement tools, increased State involvement in every phase of the Superfund program, increased the focus on human health problems posed by hazardous waste sites, encouraged greater citizen participation, and increased the size of the trust fund (EPA 2019b).

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) granted the EPA authority to create a regulatory framework to collect data on chemicals to evaluate, assess, mitigate, and control risks that may be posed by their manufacture, processing, and use. The TSCA provides a variety of control methods to prevent chemicals from posing unreasonable risk. Under TSCA Section 6, the EPA can ban the manufacture or distribution in commerce, limit use, require labeling, or place other restrictions on chemicals that pose unreasonable risks. Among the chemicals EPA regulates under Section 6 are asbestos, chlorofluorocarbons (CFCs), lead, and polychlorinated biphenyls (PCBs) (EPA 2019c).

Hazardous Materials Transportation

The U.S. Department of Transportation (DOT) developed regulations pertaining to the transport of hazardous materials by all modes of transportation. DOT regulations specify packaging requirements for different types of materials. In addition to the DOT, the US Postal Service, the EPA, the California Highway Patrol (CHP), the California Department of Transportation (Caltrans), and the California Department of Toxic Substances Control (DTSC) implement and enforce state and federal laws regarding hazardous materials transportation. The US Postal Service has regulations for the transport of hazardous materials by mail.

Transporters of hazardous materials are subject to both DOT and EPA enforcement of the regulations. Consequently, the DOT and the EPA coordinate their efforts, especially at the regional level, to obtain compliance with both the RCRA and Hazardous Materials Transportation Act (HMTA) regulations. Under the authority of the RCRA, the EPA regulates the transportation of hazardous materials. The EPA coordinates its transportation ordinances with the requirements of the HMTA and any statutes promulgated by the DOT pursuant to the HMTA. The EPA set forth these standards applicable to transporters of hazardous materials in 40 CFR 263. These EPA standards incorporate and require compliance with the DOT provisions on labeling, marking, placarding, using proper containers, and reporting discharges. The EPA's adoption of these DOT standards ensures consistency among the requirements and avoids establishing conflicting rules. The DOT's regulations are documented in 49 CFR 171-180 and implemented by the Research and Special Programs Administration within the DOT. In summary, the EPA is directed by the RCRA to establish certain standards for transporters of hazardous materials and to coordinate regulatory activities with the DOT.

EPA regulations require a transporter to:

- Comply with the manifest system (a system that ensures the integrity of the shipment from the point of origin to its destination).
- Maintain the appropriate records (signed manifests) for three years.
- Take immediate action to protect human health and the environment (e.g., notify local authorities or initiate interim measures) in the case of a discharge.
- Notify the National Response Center and submit a report to the DOT Office of Hazardous Materials Regulations in the event of a hazardous waste discharge.
- Clean up any discharges to the environment and take any actions required by the appropriate government officials for mitigating the discharge effects on human health and the environment.

Transporters of hazardous materials must also adhere to all Federal Motor Carrier Safety Regulations that the DOT adopted under the Motor Carrier Safety Act of 1984. This act specifies more requisites that apply to the transport vehicle and the driver. Among them are concise specifications for vehicle parts and accessories, such as lighting devices, brakes, glazing and windows, fuel systems, tires, and horns. Additional requirements concerning inspection, repair, and maintenance are enumerated. Special driving and parking rules that relate to hazardous materials transportation are also indicated. Standards for

drivers identify minimum qualifications, including physical qualifications, background and character profiles, and pertinent examinations. Also included among these rules are testing requirements for alcohol and controlled substances such as marijuana, cocaine, opiates, amphetamines, and phencyclidine. Other regulations pertaining to drivers include standards for the driving of vehicles, stopping, fueling, the use of lamps, the reporting of accidents, and the monitoring of a driver's hours of service.

State

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) and the State Water Resources Control Board (SWRCB) establish rules governing the use of hazardous materials. Applicable state laws include the following:

- Public Safety/Fire Regulations/Building Codes
- Hazardous Substances Information and Training Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act
- Porter-Cologne Water Quality Control Act

Hazardous Materials Management

In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the CalEPA. CalEPA's DTSC and the Regional Water Quality Control Boards (RWQCB) signed a Memorandum of Agreement in March 2005 aimed to avoid duplication of efforts among the agencies involved in the regulatory oversight of investigation and cleanup of hazardous wastes. Under the Memorandum of Agreement, either DTSC or the RWQCB is assigned to be the oversight agency at the beginning of the investigation and cleanup process.

Uniform Fire Code

The Uniform Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. The code includes specifications for fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and premises. Storage of corrosive materials and liquid and solid oxidizers must be in compliance with Uniform Fire Code Sections 5404 and 6304, which include provisions for indoor storage, detached storage, liquid-tight floors, and smoke detection, among others.

California Accidental Release Prevention Program

The California Accidental Release Prevention Program (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than a certain volume of specific regulated substances at their

facilities. The list of regulated substances is found in Article 8, Section 2770.5, of the program regulations and includes common chemicals.

Hazardous Materials Release Response Plans and Inventories (Business Plan Act)

The Business Plan Act was established to prevent or minimize the damage to public health and safety and the environment, from a release or threatened release of hazardous materials. It also satisfies community right-to-know laws. This act requires businesses that handle hazardous materials in quantities equal to or greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, or extremely hazardous substances above the threshold planning quantity to develop a business plan. The business plan includes an inventory of hazardous materials handled, a site plan where hazardous materials are stored, an emergency response plan, and a training program for employees (California Office of Emergency Service [OES] 2016).

Local

City of Irwindale General Plan Public Safety Element

The City of Irwindale 2008 General Plan Safety Element (City of Irwindale 2008) contains goals and policies that are intended to ensure the safety of the residents, commercial and industrial entities, and visitors by reducing potential hazards through conscientious land use planning. Because many businesses handle and generate hazardous materials, they are required to obtain necessary permits from various public agencies (City of Irwindale 2008). While many of these policies and action items require the City to take certain actions, they are not related to development of a particular project. Those policies that pertain to the proposed Project are listed below.

Public Safety Element Programs

Hazardous Materials Control

The City shall continue to cooperate with county, state, and federal agencies involved in the regulation of hazardous materials storage, use, and disposal. The City shall work with the County Fire Department in requiring hazardous materials users and generators to identify safety procedures for responding to accidental spills and emergencies. The Fire Department shall also work with local law enforcement officials in regulating the transport of hazardous materials through the City. The City will continue to promote the safe disposal of "hazardous and toxic substances "used in private households through the support of "Hazardous Materials Collections" conducted at specific locations and times within the City.

Environmental Review

The City shall continue to evaluate the environmental impacts of new development and provide mitigation measures prior to development approval, as required by the California Environmental Quality Act (CEQA). Environmental review shall be provided for major projects and those that will have a potential to adversely impact the environment. Issue areas related to public safety that may be addressed in the environmental analysis include: earth and geology, risk of upset, public services, and flood risk. In

compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of mitigation measures.

3.5.4 Impact Analysis

3.5.4.1 Thresholds of Significance

CEQA Guidelines Appendix G states that a project may have a significant effect on the environment if any of the following would occur:

1. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

2. 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?

3. 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?

4. 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, create a significant hazard to the public or the environment?

5. For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?

6. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

7. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands area adjacent to urbanized areas or where residences are intermixed with wildlands?

Impact 3.5.1: Routine Transport, Use, or Disposal of Hazardous Materials

Threshold:	*Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Project Construction

Construction of the Project would involve the use of various products that contain materials classified as hazardous (e.g., solvents, adhesives and cements, certain paints, cleaning agents, and degreasers). Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the subject property during construction of the Project. This heavy equipment may 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.

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 proposed 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 USEPA, DTSC, and RWQCB. The CCR Title 8 addresses workplace regulations involving the use, storage, and disposal of hazardous materials, and specific applications for construction workers. CCR Titles 22 and 26 set forth environmental health standards for hazardous materials management. California Health and Safety Code Chapter 6.95 sets forth enabling legislation for the application of CCR Titles 8, 22, and 26. Safety precautions for the prevention of fire hazards associated with the use and storage of hazardous materials are addressed in the Uniform Fire Code. Compliance with applicable federal, state, and local regulations including, but not limited to, CCR Titles 8, 22 and 26, the Uniform Fire Code, and California Health and Safety Code Chapter 6.95 would ensure that the Project would not create a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous materials.

Project Operation

The Project site is located within the M-2 (Heavy Manufacturing) Zone and is designated for Industrial/Business Park use. It is likely that the Project would use small amounts of commercial cleaning materials, paints and solvents for building maintenance, and pesticides/herbicides for Project landscaping could be considered hazardous materials. However, the specific businesses or tenants that would occupy the Project's proposed building are not known at this time. Based on the list of land uses permitted in the City's M-2 zone, it is possible that hazardous materials could be used during the course of daily operations, including the storage and use of refrigerant that may be used on-site (in the event that cold storage is provided on-site). If businesses that use or store hazardous materials occupy the Project site, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, use, emission, and disposal of hazardous substances (as described above). With mandatory regulatory compliance, the Project is not expected to 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. With mandatory regulatory compliance, potential hazardous materials impacts associated with long-term operation of the Project would be less than significant.

Conclusion

The use, storage, and transportation of hazardous materials are subject to local, state, and federal regulations, the intent of which is to minimize the public's risk of exposure. Hazardous materials regulations, which are codified in CCR Titles 8, 22, and 26, and their enabling legislation set forth in

California Health and Safety Code Chapter 6.95, were established at the state level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. Based on the uses that would be part of the Project and the existing regulatory structure related to these materials, the proposed Project would not cause a threat to public safety during project construction or operation.

Therefore, because the transport, use, storage, and disposal of hazardous materials pertaining to the Project would be relatively minor and subject to extensive regulatory oversight, this impact would be **less than significant.**

Impact 3.5.2: Reasonably Foreseeable Upset of Hazardous Materials

Threshold:	*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 Phase I ESA was performed for the proposed Project site by Leymaster Environmental Consulting, LLC in July 2018 (Appendix E). Results of the ESA include historic research on underground fuel tanks previously installed and removed onsite and the results of their corresponding soil studies and resolutions. The proposed Project site is listed in multiple environmental hazards databases as searched by EDR as part of the ESA. In each case, no substantive information was provided that would indicate a significant environmental threat or concern to the proposed Project site.

As discussed above, construction and demolition activities associated with the proposed Project could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions. For example, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for equipment. Contractors would be required to use standard controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction and demolition practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal law. Additionally, prior to demolition of the existing buildings, an abatement of the on-site hazardous materials such as ACM would occur to ensure hazardous materials are safely removed, in accordance with the Los Angeles County Department of Environmental Health Hazardous Materials Management Division and Los Angeles County's Fire Department standards, from the project site.

Hazardous materials related to Project operations would also be delivered to the project site via area roadways, likely via Los Angeles Street and Rivergrade Road. Transportation of hazardous materials would comply with all regulations put forth by the DOT, Caltrans, U.S. EPA, DTSC, CHP, and California State Fire Marshall. Adherence to all applicable laws and regulations governing hazardous materials would ensure that potential impacts associated with deliveries of hazardous materials to/from the project site are less than significant. However, the possibility that accidental release of small quantities of hazardous materials may occur during the operational phase is considered a potentially significant impact and requires

mitigation. Therefore, mitigation measure **HAZ-1** is required to reduce this impact to a less than significant level.

For these reasons, impacts would be **less than significant with mitigation**.

Impact 3.5.3: Hazardous Emissions or Substances Near a School Site

Threshold:	*Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The nearest education facilities to the project site are Charles Bursch Elementary School, Walnut Elementary School, and Olive Middle School. All of these schools are more than one-half mile from the Project site. There are no schools known to exist within one-quarter mile of the Project site. As part of the proposed Project, prior to construction, the Project would be required to prepare a hazardous substance management, handling, storage, disposal, and emergency response plan to be followed during construction activities. This plan would ensure adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, and would further ensure that construction of the proposed Project would not create a significant hazard to the public or the environment, including nearby schools.

Although the project site does not lie within one-quarter mile of a school, the Project would take preventative measures to reduce potential hazards to the surrounding communities. The Project would prepare a Hazardous Materials Business Plan (HMBP) as described in mitigation measure **HAZ-1**; comply with provisions of the County's Fire Code, the Los Angeles County Department of Environmental Health's Hazardous Materials Management Division, and the California Health and Safety Code; and prepare and implement a hazardous substance management, handling, storage, disposal, and emergency response plan during all construction activities. Therefore, the proposed Project would not emit hazardous emissions or create significant impacts through the handling of hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of a school.

For these reasons, a **less than significant impact would occur with mitigation**.

Impact 3.5.4: Located on a List of Hazardous Materials Site

Threshold:	*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, create a significant hazard to the public or the environment?*

Under Government Code Section 65962.5, both the DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. The Project site is not listed by the DTSC or SWRCB as a hazardous substances site on the list of hazardous waste sites compiled pursuant to Government Code Section 65962.5 (DTSC 2019; SWRCB 2019).

As mentioned in Impact 3.8.2, the proposed Project site is listed in multiple environmental hazards databases as searched by EDR as part of the ESA. The Property is listed in the HAZNET, LACHMS, NPDES, WDS, WIP, FINDS ECHO and CIWQS databases searched by EDR. In each case, no substantive information was provided that would indicate a significant environmental threat to the Property. The Property was also included in the SWEEPS, UST and HIST UST databases searched by EDR. Inclusion in these databases is resulting from the former underground storage tanks discussed above and does not represent an environmental concern. As such, no environmental hazard concerns are known to exist at the proposed Project site.

For these reasons, **no impact would occur**.

Impact 3.5.5: Located Within an Airport Safety Zone

Threshold:	*For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard or excess noise for people residing or working in the project area?*

The closest airport to the proposed Project site is San Gabriel Airport (formerly El Monte Airport), located approximately 2.5 miles southwest of the site. However, the project site is not located within the San Gabriel Airport's safety zone area including the runway protection zone. Additionally, as noted in the City's General Plan Update (2008), there are no specific flight corridors that overfly the City. No helistop/helipad is proposed, and no tall objects are proposed on the Project site that would cause a hazard to flight.

For these reasons, **no impact would occur.**

Impact 3.5.6: Interfere with Emergency Response or Evacuation

Threshold:	*Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The City of Irwindale adopted a Multi-Hazard Functional Plan that addresses response to and short-term recovery from disasters and emergency situations. Additionally, the City's General Plan includes a Public Safety Element that addresses seismic and geologic hazards, flood risk, hazardous materials, and noise hazards. These two plans are described above in Section 3.5.3.3. The Project would comply with the Multi-Hazard Functional Plan in the event of an emergency or citywide disaster.

Implementation of the proposed Project would increase the potential need for emergency access to and from the site. The Project design proposes access to the site from three driveways (two from Los Angeles Street and one from Rivergrade Road). During the course of the City of Irwindale's required review of the proposed Project's applications, the site plan would be reviewed to ensure that adequate access to and from the site and around the proposed buildings is provided for emergency vehicles.

With adherence to the City of Irwindale requirements for emergency vehicle access, impacts would be **less than significant.**

Impact 3.5.7: Wildland Fire Hazards

Threshold:	*Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Although the City of Irwindale contains lands designated VHFHSZ, the proposed Project is located within a heavily industrialized area and is not in the vicinity of any natural or wildlife areas. It is labeled in the Irwindale submap as non-VHFHSZ (CAL FIRE 2011). As such, implementation of the proposed Project is not likely to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Additionally, as discussed above, the Project would not impair emergency response plans if wildland fire hazards were present.

For these reasons, **no impact would occur.**

3.5.5 Cumulative Impacts

Hazardous material, human health, and safety impacts as described in CEQA Appendix G are generally site-specific and not cumulative in nature, as impacts generally vary by land use, site characteristics, and site history. The cumulative setting for the proposed Project would be the project as well as existing and future projects in the immediate vicinity.

According to the site-specific Phase 1 ESA, the Project site is not listed by the DTSC or SWRCB as a hazardous substances site on the list of hazardous waste sites compiled pursuant to Government Code Section 65962.5 (DTSC 2019; SWRCB 2019). Although each site from the cumulative projects list has potentially unique hazardous materials considerations, these sites are not within close proximity to the Project site. Furthermore, it is expected that these projects will comply with federal, state, and local statutes and regulations applicable to hazardous materials. Development of the project site would not, therefore, create a cumulative impact related to exposing the public to hazardous materials. For these reasons, cumulative impacts to the public or environment resulting from the accidental release of hazardous materials would be **less than significant.**

Impact 3.5.8: Cumulative Hazardous Materials and Emergency Response Impacts

Threshold:	*Would the proposed project, in combination with other existing, proposed, and reasonably foreseeable future development in the area, cumulatively increase exposure of people, property, and the environment to hazardous materials and interference with emergency response?*

Cumulative hazardous materials impacts would result if other existing, planned, or reasonably foreseeable projects in the vicinity of the Project area included the addition of hazardous materials above planning thresholds. This would change the total amount of hazardous materials being transported over public roadways and being used and stored near the proposed project site.

3.5.6 Mitigation Measures

HAZ-1: If applicable, the Project applicant shall prepare and implement a Hazardous Materials Business Plan (HMBP) in accordance with the requirements of the Los Angeles County Fire Department Health Hazardous Materials Management Division, which is the Certified Unified Program Agency (CUPA) for Los Angeles County. The HMBP shall include a hazardous material inventory, emergency response procedures, training program information, and basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of at the proposed Project site, and procedures for handling and disposing of unanticipated hazardous materials encountered during construction. The HMBP shall include an inventory of the hazardous waste generated on site and would specify procedures for proper disposal. Any accidental release of small quantities of hazardous materials shall be promptly contained and abated in accordance with applicable regulatory requirements and reported to the County Health Hazardous Materials Division. Implementation of the HMBP for the Project would ensure that minor spills or releases of hazardous materials would not pose a significant risk to the public or the environment.

3.5.7 Level of Significance After Mitigation

Following implementation of mitigation measure **HAZ-1**, project impacts related to hazardous materials would be **less than significant.**

3.6 Hydrology And Water Quality

This section describes the environmental setting for hydrology and water quality, including the regulatory setting and existing site conditions, the impacts on hydrology and water quality that would result from the proposed Project, and the mitigation measures that would reduce these impacts.

3.6.1 Introduction

The following analysis of the potential environmental impacts related to hydrology and water quality are derived primarily from the following sources:

- Geotechnical Investigation prepared by Southern California Geotechnical (November 2019);
- Preliminary Hydrological Calculations prepared by Thienes Engineering (December 2019);
- Low Impact Development (LID) study prepared by Thienes Engineering (December 2019); and
- Proposed Site Drainage Memo prepared by Thienes Engineering (March 2020).

3.6.2 Environmental Setting

Regional Hydrology

The proposed Project is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (RWQCB), which administers the water quality control plan (Basin Plan) within Los Angeles County. The boundaries of the Santa Ana River Basin are defined in part by physical watershed divisions and in part by administrative boundaries (i.e. Orange County/Los Angeles County line). The proposed Project is within the San Gabriel Valley hydrologic area (Basin No. 405.40), and the 167-square mile Main San Gabriel hydrologic sub-area (Basin No. 405.41), one of the many subareas within the Los Angeles RWQCB. The Project site is encompassed by the Santa Fe Flood Control Basin-San Gabriel River Sub-watershed.

Site Hydrology and On-Site Drainage

The Project site is located on flat terrain; there are no slopes, natural drainage systems or channel crossings on the site. The site is currently developed with several warehouse type buildings, small office buildings, and paved parking lots. The majority of the Project site drains from north to south to Los Angeles Street under existing conditions. A smaller portion of the site surface drains to Rivergrade Road located at the northerly portion of the Project site. The existing condition 50-year peak flow rate to Los Angeles Street is approximately 43.5 cfs, while the peak flow rate to Rivergrade Road is about 10.6 cfs.

Flow to Los Angeles Street is intercepted in existing catch basins. One catch basin is located adjacent to the Project site and conveys runoff to the existing quarry located on the southerly side of Los Angeles Street. The other catch basin is located westerly of the Project site and appears to connect to an existing Los Angeles County Department of Public Works storm drain system (Project No. 445 Line "B") located at the southerly property line of the Project site. This storm drain system conveys runoff westerly, ultimately discharging into the San Gabriel River.

The site-specific geotechnical investigation of the proposed Project site (SCG 2018 – Appendix F) indicates the static groundwater table at the site existed at a depth in excess of 50± feet at the time of the subsurface exploration. Historic groundwater data indicates the historic high groundwater level for the site is 35 feet below ground surface. The soil types, as found in the Los Angeles County Hydrology Manual, are 007 and 008 for Hanford Gravelly Sandy Loam and Hanford Silt Loam, respectively. The site-specific infiltration report recommended an infiltration rate of 20.0 in/hr. This rate is suitable for infiltration facilities.

Project Drainage Concept

The preliminary proposed condition 50-year peak flow rate for the site is approximately 77.5 cfs. This is a direct addition of individual subarea peak flow rates and does not include detention. To achieve only 6.5cfs total discharge from the Project site onsite detention is required. Truck yards at the northerly and westerly portion of the site will be used for detention as temporary storage. The easterly portion of the site is a proposed vehicle parking area and does not have the ability to detain runoff on the surface. Therefore, additional storage volume is provided in the proposed underground storage system. While the underground storage is intended to meet water quality volumes, this volume can be increased to accommodate additional storage capacity for peak flow rates. The proposed onsite storm drains and storage (detention) would be sized during the project site's final design phase to restrict outflow to the desirable discharge rates.

According to a LID Report (Thienes Engineering 2019a – Appendix G) prepared for the proposed Project, the project involves replacing 5,000 square feet or more of impervious surface area on an already developed site. This redevelopment results in an increase of more than fifty percent of the impervious surfaces of the previously existing development, and the existing development was not subject to LID requirements.

The proposed Project is required to incorporate appropriate stormwater mitigation measures into the design plan for the entire site and specifically for parking lots. According to the site-specific LID Report, the project will infiltrate the Storm Water Quality Design Volume (SWQDv) runoff generated by the project through the use of an underground Corrugated Metal Pipe (CMP) system. The CMP detention system will be utilized to treat the SWQDv and route stormwater greater than the 85th percentile into the mainline (Appendix G).

3.6.3 Regulatory Setting

Federal

Clean Water Act

The United States Environmental Protection Agency (EPA) is the federal agency responsible for water quality management. The Federal Water Pollution Control Act of 1948 was the first major United States (U.S.) law to address water pollution. As amended in 1972, the law became commonly known as the Clean Water Act (CWA). The CWA establishes the basic structure for regulating discharges of pollutants in the Waters of the U.S. and regulating quality standards for surface waters.

Section 401. Section 401 of the federal CWA requires that any applicant for a federal permit or license that may result in a discharge to waters of the U.S. must obtain certification from the State. The certification declares that the discharge will comply with applicable provisions of the Act, including water quality standards requirements. Most projects receiving a United States Army Corps of Engineers (USACE) nationwide permit also need individual Section 401 certification. The State Water Resource Control Board (SWRCB), through the RWQCB administers these permits.

Section 402. The National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the U.S. An NPDES permit allows facilities to discharge a specified amount of a pollutant into a receiving water under certain conditions. The State of California is authorized to administer various aspects of the NPDES permit under Section 402 of the CWA. The General Construction Permit treats any construction activity over one acre as an industrial activity, requiring a permit under the State's General NPDES permit. The SWRCB, through the RWQCB administers these permits.

Section 404. In 1972, Section 404 of the federal CWA established a program to regulate the discharge of dredged or fill material into waters of the U.S. The CWA defines waters of the U.S. to include tributaries to navigable waters, interstate wetlands, wetlands which could affect interstate or foreign commerce, and wetlands adjacent to other waters of the U.S.

The program is jointly administered by the USACE and the EPA. The USACE is responsible for the day-to-day administration and permit review and the EPA provides program oversight. The fundamental rationale of the program is that no discharge of dredged or fill material should be permitted if there is a practicable alternative that would be less damaging to aquatic resources or if significant degradation would occur to the nation's waters. Permit review and issuance follows a sequence process that encourages avoidance of impacts, followed by minimizing impacts and, finally, requiring mitigation for unavoidable impacts to the aquatic environment. The sequence is described in the guidelines at Section 404(b)(1) of the CWA.

Proposed activities are regulated through a permit review process. An individual permit is required for potentially significant impacts. Individual permits are reviewed by the USACE, which evaluates applications under a public interest review, as well as the environmental criteria set forth in the Section 404(b)(1) guidelines. However, for most discharges that will have only minimal adverse effects, a general permit may be suitable. General permits are issued on a nationwide, regional, or state basis particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met.

Section 408. Modification to a federal levee system requires approval under Section 408 of the CWA. There are two types of Section 408 permits; a minor and a major permit. The USACE District Engineer is the approval authority for a minor 408 authorization. A minor 408 authorization applies to relatively minor, low impact alterations/modifications related to the operation and maintenance (O&M) responsibilities of the non-Federal sponsors. The types of alterations/modifications that can be approved under a minor 408 authorization include placement of structures such as pump houses, stairs, pipes, bike trails, sidewalks, fences, driveways, power poles, and instrumentation provided these

alterations/modifications do not adversely affect the functioning of the project and flood fighting activities. A major 408 authorization requires the approval by the USACE Chief Engineers and includes degradations, raisings, and realignments of flood control structures. Other alterations/modifications would include non-Federal levee tie-ins, ramps, riverside landscaping, retaining walls, fill against a levee (such as railroad trestles and overbuild), bridges, relief wells, seepage berms, and stability berms. Engineering analysis must be conducted in instances where it is not clear if the proposed alteration/modification is within the authority delegated to a District Engineer or requires the approval by the Chief of Engineers (USACE 2008).

State

Fish and Game Code Section 1602

The California Department of Fish and Wildlife (CDFW) requires notification before beginning an activity that will substantially modify a river, stream, or lake. If CDFW determines that the activity could substantially adversely affect an existing fish and wildlife resource, a Lake or Streambed Alteration Agreement is required.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act was established in 1969 and is the principal law governing water quality regulation in California. It created a comprehensive program to protect water quality and the beneficial uses of water. The Act created the SWRCB to set statewide policy, and together with the nine RWQCBs, implements state and federal laws and regulations. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution (SWRCB 2014). The Act also implements many provisions of the CWA, such as the NPDES permitting program and Waste Discharge Requirements (WDRs).

Local

Los Angeles Regional Water Quality Control Board

The Los Angeles Regional Water Quality Control Board (LARWQCB) is one of the nine regional boards in California. The LARWQCB has jurisdiction over coastal watersheds of Los Angeles and Ventura Counties and very small portions of Kern and Santa Barbara Counties. LARWQCB's activities include: preparing, monitoring compliance with, and enforcing WDRs; implementing and enforcing local storm water control efforts; enforcing water quality laws, regulations, and waste discharge requirements; and informing the public on water quality issues, among other things (LARWQCB 2019a). The City of Irwindale is located within Region 4 of the LARWQCB.

LARWQCB's Basin Plan

The nine RWQCBs throughout California each adopt and implement a Basin Plan designed to preserve water quality and protect all regional waters. In 2014, the LARWQCB created a Basin Plan for the protection of the beneficial uses of waters within the coastal watersheds of Los Angeles and Ventura counties. Specifically, the Basin Plan: (i) identifies beneficial uses for surface and ground waters, (ii) includes the narrative and numerical water quality objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy, and (iii)

describes implementation programs and other actions that are necessary to achieve the water quality objectives established in the Basin Plan (LARWQCB 2014).

Municipal Separate Storm Sewer System (MS4) Permit

The LARWQCB issued Order No. R4-2012-0175 on November 08, 2012, which established WDRs for Municipal Separate Storm Sewer Systems (MS4) Discharges within the Coastal Watersheds of Los Angeles County, except those discharges originating from the City of Long Beach. This permit covers 84 cities and most of the unincorporated areas of Los Angeles County. The County and cities are designated as the Permittees and the Los Angeles County Flood Control District is designated as the Principal Permittee.

The MS4 Permit requires Permittees to implement a development planning program to address stormwater pollution. Certain types of projects are required to implement Standard Urban Stormwater Mitigation Plans throughout the operational life of their projects. The City of Irwindale enforces the provisions of the MS4 Permit through its Storm Water and Urban Runoff Pollution Ordinance (Municipal Code Chapter 8.28).

Standard Urban Stormwater Mitigation Plan

On July 15, 1996, the LARWQCB issued a NPDES permit to the 85 incorporated cities within Los Angeles County. Pursuant to provisions within the permit, the County was required to submit Standard Urban Storm Water Mitigation Plans (SUSMP). The SUSMPs are designed to reduce stormwater pollution discharge by designating best management practices (BMPs) that must be used in specified categories of development projects (LARWQCB 2019a). The SUSMP must be reviewed and approved by the City, and must include a long term maintenance agreement to ensure all features remain effective and operational.

Low Impact Development

LID is a leading stormwater management strategy that expands upon the SUSMP. Urban runoff discharged from municipal storm drain systems can contain pollutants that negatively affect the ocean, rivers, plant and animal life, and public health. This discharge is one of the principal causes of water quality impacts in most urban areas. LID seeks to mitigate the impacts of runoff and stormwater pollution by mimicking the natural hydrology of the site, thus retaining precipitation on-site to the maximum extent practicable.

LID comprises a set of site design approaches and best management practices (BMP) that are designed to address runoff and pollution at the source. These LID practices can effectively remove nutrients, bacteria, and metals while reducing the volume and intensity of stormwater flows.

The Los Angeles County's LID ordinance became effective in May 2012. The main purpose of this law is to ensure that development and redevelopment projects mitigate runoff in a manner that captures rainwater at its source, while utilizing natural resources. Project applicants are required to prepare and implement a stormwater mitigation plan when their projects fall into any of these categories:

- Single-family hillside residential developments
- Housing developments of 10 or more dwelling units (including single family tract developments)
- Industrial /Commercial developments with one acre or more of impervious surface area

- Automotive service facilities
- Retail gasoline outlets
- Restaurants
- Parking lots of 5,000 square feet or more of surface area or with 25 or more parking spaces
- Projects with 2,500 square feet or more of impervious area that are located in, adjacent to, or draining directly to designated Environmentally Sensitive Areas (ESA)

City of Irwindale General Plan

The City's General Plan contains a number of policies and programs designed to preserve and enhance water quality. While many of these policies and action items require the City to take certain actions, they are not related to development of a particular project. The following goals and policies in the Resource Management Element are relevant to the impacts on hydrology and water quality.

Resource Management Element Policies

The City will continue to cooperate with the other agencies that are charged with improving air and water quality in the region.

Issue Area – Resource Preservation

The City of Irwindale will maintain and preserve those natural and man-made amenities that contribute to the City's livability.

Resource Management Element Policy 9. The City will continue to cooperate with the other agencies that are charged with improving air and water quality in the region.

Programs within the Resources Management Element relevant to hydrology and water quality include the following:

Stormwater Pollution Prevention

This program is designed to prevent contaminants from entering the storm drain system. A key element of this program is the National Pollution Discharge Elimination System (NPDES) requirements, which are administered through a countywide permit. These requirements call for measures to be imposed during construction activities, handouts for residential uses, and best management practices (BMPs) for nonresidential uses. The City shall also continue to implement projects to maintain storm water quality, such as street sweeping, catch basin grills, signs, etc.

Environmental Review

The City shall continue to evaluate the environmental impacts of new development and identify applicable mitigation measures prior to development approval, as required by the CEQA. Environmental review shall be provided for those projects that will have a potential to adversely

affect the environment. Issue areas that will be addressed in the environmental analysis related to resource issues include: air quality, water and hydrology, plant life, animal life, natural resources, energy, aesthetics, recreation, and cultural resources. In compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of any mitigation measures.

3.6.4 Impact Analysis

3.6.4.1 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would have significant effect on the hydrology and water environment if it would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:

    a. result in substantial erosion or siltation on- or off-site;
    b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    c. create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
    d. impede or redirect flood flows.

4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact 3.6.4.1: Water Quality Standards/Waste Discharge Requirements

Threshold:	*Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The California Porter-Cologne Act and the CWA require that comprehensive water quality control plans be developed for all waters within the State of California. Because construction of the proposed Project would require land disturbance greater than one acre, the proposed Project would be required to prepare and implement a SWPPP in accordance with the State's General Permit for Construction Activities. In this manner, the Project would also comply with requirements of the City's NPDES Permit and other water quality requirements or storm water management programs specified by the RWQCB. In combination,

implementation of these requirements would protect City and regional water quality by preventing or minimizing potential pollutant discharges to the watershed.

Construction of the Project would involve grading, paving, utility installation, building construction, and landscaping installation, which would result in the generation of potential water quality pollutants such as silt, debris, chemical paints, and other solvents with the potential to affect water quality. BMPs have demonstrated through years of field testing and use the ability to reduce stormwater impacts to less than significant levels. Although not comprehensive, some of the BMPs that the Project would potentially be required to implement during project construction are:

Erosion Control. Employ measures to prevent the movement of soil by wind or water during project construction and may include watering and physical barriers to the movement of soil particles.

Sediment Control. Employ features to prevent the offsite conveyance of sediments, including onsite catch basin inlet protection.

Tracking of Soil. Employ measures to effectively minimize the tracking of soil by vehicles and may include gravel driveways, wheel washes, and street sweeping.

Waste and Cleanup. The SWPPP must address storage and disposal related to debris, trash, concrete, asphalt, paint, coatings, solvents, and other materials applicable to preparation and construction at the project site.

Other Reasonable BMPs. The SWPPP must also implement other applicable BMPs as needed to keep other pollutants away from stormwater. The SWPPP must identify additional applicable measures taken during the rainy season and when storms are anticipated.

Long-term operation of the Project site with land use allowed under the M-2 (Heavy Manufacturing) zone is anticipated to generate storm water pollutants such as bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash and debris, and oil and grease. As such, the project owner would be required to ensure that such pollutants are contained or disposed of properly. For example, the parking lot would be swept on a monthly basis, minimum, and before any rain events. Absorbent materials would be used to collect any spilled oil, and disposed of properly, to ensure they do not contaminate stormwater. Drain inserts would be used at all proposed onsite inlets and collect drainage from impervious areas prior to flowing through the underground CMP system for infiltration (Appendix G).

In addition to these measures, compliance with the MS4 Permit and the Irwindale Municipal Code Section 8.28 (Storm Water and Urban Runoff Pollution) would ensure that stormwater runoff from the site during construction and operation would not violate water quality standards or waste discharge requirements.

For these reasons, impacts with respect to water quality are considered **less than significant.**

Impact 3.6.4.2: Groundwater

Threshold:	*Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The Project site is located within the San Gabriel Valley Groundwater Basin, which is situated in eastern Los Angeles County and includes the water-bearing sediments underlying most of the San Gabriel Valley and a portion of the upper Santa Ana Valley. Recharge of the Basin comes mainly from direct percolation of precipitation, runoff from the San Gabriel Mountains, numerous spreading grounds, and treated sewage effluent. The San Gabriel River is the major body of surface water in the city and most of the city's stormwater is conveyed there. The river is located approximately 1,400 feet west of the Project site.

The site-specific geotechnical investigation of the proposed Project site (SCG 2018) indicates the static groundwater table at the site existed at a depth in excess of 50± feet at the time of the subsurface exploration. Historic groundwater data indicates the historic high groundwater level for the site is 35 feet below ground surface. Project construction and operation would not interfere with the existing aquifer.

According to the LID Report prepared for the proposed Project, the Project would replace 5,000 square feet or more of impervious surface area on the developed site. This redevelopment of the site would result in an increase of more than 50 percent of the impervious surfaces of the previous concrete manufacturing development, which was not subject to LID requirements. Therefore, the Project would install storm drainage infrastructure to ensure that storm waters properly drain from the project site and eventually convey to the San Gabriel River. Where the surface of the project site is permeable, surface water flows may percolate to the San Gabriel Valley Groundwater Basin below the project site. Additionally, the Project does not include groundwater wells and would be served by existing water supplies.

For these reasons, impacts to groundwater supplies would be **less than significant.**

Impact 3.6.4.3: Drainage Patterns

Threshold:	*Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:* *i) result in substantial erosion or siltation on- or off-site;* *ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;* *iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or* *iv) impede or redirect flood flows?*

(i) Construction of the proposed Project would involve grading of the site's existing ground contours and altering the site's existing drainage pattern. The Project is designed so that pollutants from the impervious surfaces are disconnected prior to discharging offsite. Upon buildout of the Project, stormwater runoff from all portions of the Project site would be captured by on-site storm drains that would be routed to catch basins onsite and at Los Angeles Street and Rivergrade Road. Drain inserts would be used at all proposed onsite inlets and collect drainage from impervious areas prior to flowing through the underground CMP system for infiltration.

Furthermore, BMPs would be included as part of the SWPPP prepared for the proposed Project and would be implemented to control erosion and siltation impacts during construction activities. Implementation of BMPs related to erosion control would ensure that impacts remain **less than significant.**

(ii) Per the MS4 Permit, the Project would be required to incorporate LID features to better capture and treat a major portion of stormwater runoff. Thienes Engineering conducted preliminary hydrological calculations to determine the existing condition and proposed condition 50-year peak flow rates from the Project site, which drain into existing catch basins in Rivergrade Road and Los Angeles Street. The County has indicated that pursuant to hydraulic analysis of the existing system, additional flow could be added provided that the extra input will not exceed the present condition hydraulic grade line (H.G.L.) by more than 0.2 feet (Thienes Engineering, 2019b; Appendix H). Hydraulic modeling for the existing storm drain system has been performed by Thienes Engineering based on plans and peak flow rates provided by the County. The modeling indicates the maximum peak flow rate that could be added to the County storm drain is 6.5 cfs.

The preliminary proposed condition 50-year peak flow rate for the Project site is approximately 77.5 cfs. This is a direct addition of individual subarea peak flow rates and does not include detention. Truck yards at the northerly and westerly portion of the site will be used for temporary storage. The easterly portion of the site is a proposed vehicle parking area and would not have the ability to detain runoff on the surface. Therefore, additional storage volume would be provided in the proposed underground storage system. While the underground storage is intended to meet adequate water quality treatment volumes, this volume can be increased to accommodate storage of some peak flow rates.

Hydrograph analysis to determine required volumes for storage indicates that between storage in the truck yards and additional underground storage, the discharge from the majority of the Project site can be reduced to 4.5 cfs, leaving approximately 2.0 cfs for the parking areas adjacent to Los Angeles Street. Here, smaller individual storage areas would be provided in the parking lots. Overall, a total discharge of no more than 6.5 cfs for the Project site can be achieved.

The analysis indicates the peak flow rate can be reduced to an amount acceptable to the County for connection to the existing County storm drain system. As an alternative, this same reduced peak flow rate can be discharged to the existing City catch basin adjacent to the site. In either case, the overall 50-year peak flow rate can be reduced to approximately 15% (6.5 cfs/43.5 cfs) of the existing condition 50-year peak flow rate currently tributary to Los Angeles Street.

The proposed onsite storm drains and storage (detention) would be sized during the project site's final design phase to restrict outflow to the desirable discharge rates. As such, surface runoff volumes would not exceed existing conditions and impacts would be **less than significant.**

(iii) As previously discussed, the proposed Project would increase impervious surfaces throughout the project site and would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the project site. The storm drain analysis indicates peak flow rates can be reduced with onsite detention to an amount acceptable to the County for connection to the existing County storm drain system. As an alternative to a connection to the County system, with incorporation of additional storage volume in the proposed underground storage system, this same reduced peak flow rate could be discharged to the existing City catch basin adjacent to the site. In either case, the overall 50-year peak flow rate could be reduced below the existing condition 50-year peak flow rate currently tributary to Los Angeles Street.

Pursuant to a City of Irwindale Condition of Approval, the proposed onsite storm drains shall be sized during the project site's final design phase to restrict outflow to the desirable discharge rates. With the incorporation of these measures, the reduced flows would be equal to or less than existing flows that are currently generated from the Project site. As the developed peak flows for the Project site would be limited and metered through the use of onsite detention basins, there would be adequate capacity in the existing storm drain system for the proposed flows.

The site-specific LID report indicates that the proposed underground CMP detention system will be utilized to treat the SWQDv and route stormwater greater than the 85th percentile into the mainline. Thus, the Project would not result in a substantial additional source of polluted runoff.

The onsite and offsite facilities would be adequate to collect, treat and convey stormwater runoff from the Project site and no additional direct connections would be required. Impacts associated with the existing and planned storm drain systems would be **less than significant.**

(iv) Pursuant to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) 06037C1700F, the proposed Project site is located in Zone X, which is determined to be outside the 0.2% annual chance floodplain. Therefore, impacts related to placement of structures within a 100-year flood hazard area would be **less than significant.**

For the reasons described above, impacts to this threshold would be **less than significant.**

Impact 3.6.4.4: Hazardous Zones

Threshold:	*In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

According to the City of Irwindale General Plan Safety Element (2008), the Project site is not identified within a flood hazard, tsunami, or seiche zone. Due to the depth of the Vulcan Durbin Quarry area across Los Angeles Street south of the Project site, impounded water in this quarry is not expected to overtop quarry walls during a seismic event. Therefore, the possibility of an earthquake induced seiche from the

Vulcan Durbin Quarry would be less than significant. For these reasons, impacts to this threshold would be **less than significant.**

Impact 3.6.4.5: Water Quality/Groundwater Management Plans

Threshold:	*Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

As described above in Section 3.6.3, the RWQCB created a Basin Plan for the protection of the beneficial uses of waters within the coastal watersheds of Los Angeles and Ventura counties. Specifically, the Basin Plan: (i) identifies beneficial uses for surface and ground waters, (ii) includes the narrative and numerical water quality objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy, and (iii) describes implementation programs and other actions that are necessary to achieve the water quality objectives established in the Basin Plan (LARWQCB 2014). In accordance with these goals and policies, the Project's proposed storm drain system and implementation of the SWPPP would reduce the project's contributions to water quality and runoff impacts to levels that are less than significant. Additionally, an underground CMP detention system would be utilized to treat the SWQDv and route stormwater greater than the 85th percentile into the mainline. As such, the proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

For these reasons, impacts would be **less than significant.**

3.6.5 Cumulative Impacts

3.6.5.1 Cumulative Setting

The cumulative setting for hydrology and water quality includes the San Gabriel River Watershed as described in detail in the Existing Setting subsection above.

3.6.5.2 Cumulative Impacts to Hydrology and Water Quality

The proposed Project, when considered in combination with existing, approved, proposed, and reasonably foreseeable development in the watershed, would alter cumulative drainage conditions, rates, volumes, and water quality, which could result in potential flooding and stormwater quality impacts within the overall watershed. However, as discussed in Impacts 3.6.1 and 3.6.2, the Project's proposed storm drain system and implementation of the SWPPP would reduce the project's incremental contributions to water quality and runoff impacts to levels that are less than significant. As such, cumulative impacts to hydrology and water quality are **less than significant.**

3.6.6 Mitigation Measures

No mitigation measures are required.

3.6.7 Level of Significance After Mitigation

Less than significant impact.

3.7 Land Use and Planning

This section describes the environmental and regulatory setting for land use and planning, including applicable plans, policies, regulations, and/or laws, and existing land use designations. This section also describes land use impacts that would result from the proposed Project, and any mitigation measures that would be needed to reduce significant impacts.

3.7.1 Introduction

The proposed Project site is located in an area designated Industrial/Business Park and zoned M-2 Heavy Manufacturing by the City of Irwindale General Plan (2008) and would develop an industrial warehouse project that is compatible with surrounding uses. According to the General Plan, this type of development is "usually well landscaped, provides abundant parking, and a uniform architectural design theme. These attractive developments typically include office, manufacturing, and warehousing uses" (City of Irwindale 2008). While this use is consistent with the proposed Project site's current M-2 Heavy Manufacturing zoning designation, no specific tenant(s) have been identified to occupy the proposed building.

Since 1967, the proposed Project site has been used by a pre-cast concrete manufacturing company. The proposed Project would involve the demolition of existing on-site buildings and the construction of a ±528,710 square feet (SF) stand-alone concrete tilt-up building that is compatible with surrounding uses. The Project would construct approximately 261 vehicle parking spaces, 26 bicycle parking spaces, and 109,330 SF of landscaping. Compatibility with surrounding land uses and conformity with City Commercial and Industrial Design Guidelines would be established through the City's project review and Site Development Permit.

3.7.2 Environmental Setting

The City of Irwindale contains approximately 9.6 square miles, or 6,150 acres, and has a population of approximately 1,461 residents. The City began as a small residential settlement but its predominant land use has been sand and gravel extraction. Following the City's incorporation in 1957, large expanses of the City's land area were subsequently zoned for heavy manufacturing uses (M-2, Heavy Manufacturing). This industrial zoning was thought to be the most appropriate type of land use because it was compatible with the extensive mining operations that were already in place. Thus, typical residential and commercial development found in Irwindale currently represents less than 17% of the City's total land area, far less than comparable figures for the surrounding communities. Industrial development represents approximately 15% of the City's total land area (City of Irwindale 2008).

Surrounding the Project site are commercial and industrial buildings (City of Baldwin Park) to the east, Rivergrade Road and the San Gabriel River Freeway (I-605) to the north, an industrial building (SCE Material Supply, Irwindale Distribution Center) to the west, Los Angeles Street and a gravel quarry (Vulcan Durbin Materials Plant) to the south. The proposed Project site is 24.88 acres in size and is currently occupied by three office buildings totaling 32,501 SF.

Until 2017, the proposed Project site has been the location of a former hollow core concrete manufacturing business. The site has largely been cleared of facilities associated with this former use, with

the exception of an approximate 20,000 SF brick and concrete office building with a flat roof and steel-framed windows and doors at the south end of the Property; a small mobile office is attached at the northeast corner of the building; an approximate 2,883 SF office building; and an approximate 9,618 SF maintenance building are present to the east of the main building. The vacant site is largely unpaved and has been highly disturbed through decades of industrial manufacturing and heavy truck usage.

3.7.3 Regulatory Setting

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) encompasses all of Ventura, Los Angeles, San Bernardino, Orange, Riverside, and Imperial counties. SCAG's 2008 Regional Comprehensive Plan is a long-term comprehensive plan which addresses the region's many challenges and provides a strategic vision for handling the region's land use, housing, economic, transportation, environmental and overall quality of life needs. In 2016, SCAG adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals.

San Gabriel Valley Council of Governments

The San Gabriel Valley Council of Governments (SGVCOG) a joint powers authority of 30 incorporated cities, the unincorporated communities in Los Angeles County Supervisorial Districts 1, 4, and 5, and the three San Gabriel Valley Municipal Water Districts (San Gabriel Valley Municipal Water District, Three Valleys Municipal Water District, and Upper San Gabriel Valley Municipal Water District). Its purpose is to maximize resources and advocate for regional and member interests to improve the quality of life in the San Gabriel Valley. SGVCOG has been delegated the responsibility of regional, community, and intercommunity transportation planning, supporting regional water resiliency, coordinating environmental efforts, addressing homelessness, and providing a forum to facilitate discussion on emerging issues.

Local

City of Irwindale 2020 General Plan

The City of Irwindale 2020 General Plan was adopted in June 2008 to serve as a blueprint for future planning and development in the City. The goals of the Plan include: finding a balance between the ongoing mining activities, residential neighborhoods and businesses that contribute towards Irwindale's community character; overseeing the safe reclamation of both the inactive and active quarries and to facilitate their timely re-use; promoting new forms of development that will lessen the City's previous reliance on mining as a means to provide both jobs and revenue; and improving the overall environment of the community. The General Plan designates the project site Industrial/Business Park and it is zoned M-2 (Heavy Manufacturing) (Figure 3.7-1. Existing General Plan Land Use Designations) . According to the General Plan, this type of development is usually characterized by "intensive industrial operations that may also include outdoor storage of materials and equipment as an ancillary use." The Industrial/Business

Park designation corresponds with the following zone districts: C-M (Commercial Manufacturing), M-1 (Light Manufacturing), and M-2 (Heavy Manufacturing) (City of Irwindale 2008).

The Community Development Element serves as a guide for land use and development within the City of Irwindale. The policies included in the Element focus on the following three major issue areas: 1) the City's commitment to comprehensive land use planning; 2) the City's commitment in continuing its pursuit of economic development; and 3) the City's continued commitment in promoting quality urban design as a means to make Irwindale a more desirable place to live, work, and invest.

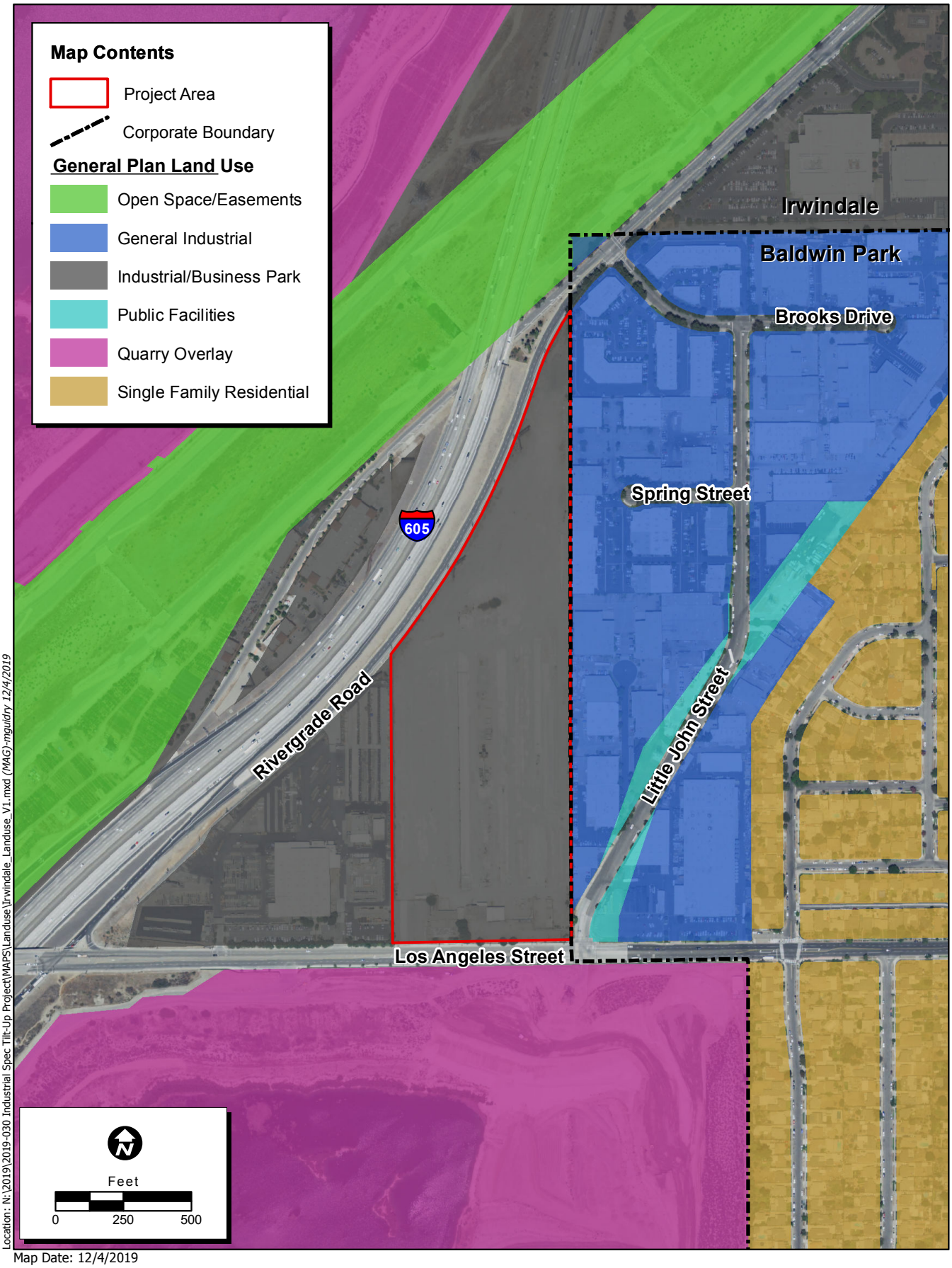
City of Irwindale Community and Industrial Design Guidelines

In 2009, the City adopted the Community and Industrial Design Guidelines to protect and preserve the City's Hispanic heritage while enriching the community's quality of life. These Guidelines ensure an aesthetically and functionally cohesive community through basic site and design principles, detailed design guidelines, and an explanation of the design review process (City of Irwindale 2009).

City of Irwindale Municipal Code

The project site is currently zoned M-2 (Heavy Manufacturing) with a land use designation of Industrial/Business Park. According to the City's Municipal Code, the M-2 zone allows for any use permitted in the M-1 (Light Manufacturing) zone, subject to some restrictions. Further, any use permitted in the C-M (Commercial Manufacturing) zone, subject to some restrictions, would be permitted within the M-1 zone. According to City Municipal Code Section 17.48, the C-M zone allows for "warehouses, wholesale businesses and storage buildings (no outside storage)." Therefore, the proposed warehouse would be a permitted use.

Should an alternative use be proposed that is not specifically permitted in the M-2, M-1 or C-M Zones, a conditional use permit (CUP) may be required. Approval of a CUP is a discretionary action that would be subject to further environmental review. A complete list of uses that require a CUP is available in the City Municipal Code Section 17.56.020.



Location: N:\2019\2019-030 Industrial Spec Tilt-Up Project\MAPS\Landuse\Irwindale_Landuse_V1.mxd (MAG)-mguidry 12/4/2019

Map Date: 12/4/2019
Base Source: NAIP 2018
Land Use Source: Cities of Irwindale, Baldwin Park, and Arcadia

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 3.7-1.
Existing General Plan Land Use Designations
2019-030 Irwindale Industrial Spec Tilt-Up Project

3.7.4 Impact Analysis

3.7.4.1 Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines Appendix G states that a project may have a significant effect on the environment if implementation would result in any of the following:

1) Would the project physically divide an established community?

2) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Impact 3.7.1: Physically Divide an Established Community

Threshold:	*Would the project physically divide an established community?*

As mentioned above, the proposed Project site is zoned for Heavy Manufacturing. The site had been occupied by a pre-cast concrete manufacturing company since 1967 and was vacated in 2017. Surrounding the Project site are commercial and industrial buildings (City of Baldwin Park) to the east, Rivergrade Road and the San Gabriel River Freeway (I-605) to the north, an industrial building (SCE Material Supply, Irwindale Distribution Center) to the west, Los Angeles Street and a gravel quarry (Vulcan Durbin Materials Plant) to the south.

The proposed Project is compatible with surrounding uses and shall be required to demonstrate compliance with established City Commercial and Industrial Design Guidelines. While the site is situated approximately 700 feet to the west of a residential neighborhood in the City of Baldwin Park, no part of the Project would extend beyond the existing site boundaries, and no part of the project would create a barrier within the established community. The presence of a new industrial warehouse development would not physically hinder or disrupt the continuing operation of any surrounding land uses.

For these reasons, **no impact would occur.**

Impact 3.7.2: Potential Conflicts with Applicable Land Use Plans and Policies Adopted for Mitigating Environmental Impacts

Threshold:	*Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The proposed Project site is located in an area designated Industrial/Business Park and zoned M-2 Heavy Manufacturing by the City of Irwindale General Plan (2008). According to the General Plan, typical land uses and/or developments that occur within areas designated as Industrial/Business Park consist of light industry, heavy industry, and distribution. This type of development is "usually well landscaped, provides abundant parking, and a uniform architectural design theme. These attractive developments typically include office, manufacturing, and warehousing uses" (City of Irwindale 2008). The proposed Project would demolish several existing buildings and ancillary structures associated with a former concrete

manufacturing business and construct a light industrial/warehouse building and associated parking, utilities, and landscaping. As such, the proposed warehouse building is consistent with the existing pattern of industrial land uses in the surrounding area.

The existing land uses in the vicinity consist of commercial and industrial buildings (City of Baldwin Park) to the east, Rivergrade Road and the San Gabriel River Freeway (I-605) to the north, an industrial building (SCE Material Supply, Irwindale Distribution Center) to the west, Los Angeles Street and a gravel quarry (Vulcan Durbin Materials Plant) to the south. Construction of a warehouse building to replace the existing structures would be consistent with the existing pattern of development within the project site vicinity. According to the General Plan, the maximum floor to area ratio (FAR) for the Industrial/Business category is 1.0. The FAR for the proposed Project is approximately 0.49 (528,710 sf of total building area/1,083,772.8 sf site area).

Consistency with the applicable policies identified in the General Plan Community Development Element policies is provided in Table 3.7-1.

Table 3.7-1: Consistency with the City of Irwindale General Plan

City of Irwindale General Plan Policy	Project Consistency Analysis
Land Use Planning	
Community Development Element Policy 1. The City of Irwindale, through continued comprehensive land use planning, will strive to preserve the overall mix of land uses and development in the community.	**Consistent** – The proposed Project would establish an industrial warehouse at the site of a vacant warehouse building, within an existing and established industrial/business park area. As described throughout this section, the proposed warehouse is consistent with the industrial/business park land use designation of the project site. As such, the Project would contribute to the preservation of the overall mix of land uses in the City.
Community Development Element Policy 2. The City of Irwindale will continue to plan for the transition of the quarries located within the City to other land uses.	**Consistent** – The proposed Project is not located on the site of a quarry. However, it is located directly north of the existing Vulcan Durbin Quarry. The proposed warehouse use for the project site would not interfere with the current operation of the quarry, and it would be consistent with the planned land uses that are anticipated to be developed at the site of the quarry in the future. As such, the proposed project would not preclude the City from planning for the transition of the Vulcan Durbin Quarry to other land uses.
Community Development Element Policy 3. The City of Irwindale will continue to ensure that the type, location, and intensity of all new development and intensified developments adhere to the requirements that are specified for their particular land use category in the General Plan.	**Consistent** – The proposed Project is consistent with the Industrial/Business Park land use designation that has been applied to the project site. The proposed warehouse is an allowable use within the M-2 Heavy Manufacturing Zone.
Community Development Element Policy 5. The City of Irwindale will continue to promote comprehensive development consistent with this General Plan as opposed to piecemeal and incremental planning.	**Consistent** – The proposed Project is consistent with the General Plan land use designation of the project site and with the land use policies, as demonstrated throughout this section. The proposed Project is located within an existing industrial/business park area and is consistent with the land use designation that has been applied to this area.
Economic Development	

Table 3.7-1: Consistency with the City of Irwindale General Plan

City of Irwindale General Plan Policy	Project Consistency Analysis
Community Development Element Policy 7. The City of Irwindale will continue to promote economic development through the use of redevelopment.	**Consistent** – The project site consists of a former hollow core concrete manufacturing business. The proposed Project would redevelop this underutilized site with an industrial warehouse that would provide employment for the City and surrounding communities. As such, the proposed project would support the City's promotion of economic development through redevelopment projects.
Community Development Element Policy 9. The City of Irwindale will strive to ensure that future development, supported in whole or part through redevelopment, is fiscally sound.	**Consistent** – The proposed warehouse would be constructed, operated, and maintained by Duke Realty, a real estate investment trust. The project is considered to be fiscally sound.
Community Development Element Policy 10. The City of Irwindale will promote development that will benefit the community as a whole in terms of both jobs and revenue generation.	**Consistent** – While the Project tenant has not yet been identified, the industrial/warehouse project would create employment and revenue at a site that is currently vacant.
Urban Design	
Community Development Element Policy 12. The City of Irwindale will continue to promote quality design in the review and approval of commercial and industrial development through the application of the commercial and industrial design guidelines.	**Consistent** – The proposed Project would be consistent with the Commercial and Industrial Design Guidelines. The Project site plans and design would be reviewed and approved by the City prior to project implementation to ensure Project consistency with industrial design standards.
Community Development Element Policy 13. The City of Irwindale will continue to employ a design theme in the review of future commercial and industrial development and in the rehabilitation of existing commercial and industrial uses.	**Consistent** – As described above in the consistency analysis for Policy 12, the Project would be subject to site plan and design review. As such, the City would be able to employ a design theme in their review of the project. The Project would be consistent with the City's Design Guidelines that have been developed for commercial and industrial uses.
Community Development Element Policy 14. The City of Irwindale will continue to promote property maintenance in all areas of the City.	**Consistent** – Once developed, the proposed warehouse would be maintained by the applicant/tenant(s) in accordance with City requirements.
Community Development Element Policy 16. The City of Irwindale will continue to encourage a balance of commercial uses to avoid an overconcentration of uses to best serve the residents, employee population, and business community.	**Consistent** – The proposed Project would implement an industrial warehouse use within an existing industrial/business park area consistent with the City's General Plan.

Source: City of Irwindale General Plan, 2008.

Commercial and Industrial Design Guidelines Consistency

The City's Commercial and Industrial Design Guidelines establish design principles, detailed design guidelines, and a design review process to ensure that commercial and industrial projects within the City contribute to an aesthetically and functionally cohesive community. These provisions are designed to minimize land use conflicts and avoid or mitigate environmental effects.

The Project is designed for an industrial warehouse use. The Project will be required to conform with the City's Commercial & Industrial Design Guidelines, and the provisions of the Site Plan and Design Review Permit to address the site configuration, design, location, and impact of the proposed use and compliance with established Zoning Code standards.

Zoning Ordinance Consistency

The City of Irwindale would review all project plans, including site plans design plans, landscape plans, and wet and dry utility plans, for consistency with the City's Zoning Ordinance. The M-2 zone does not have a maximum height limit; as such, the proposed buildings heights would not conflict with the zoning ordinance. The proposed Project would be subject to the regulations established in Chapter 17.56 of the Municipal Code and would comply with those regulations. Because a tenant has not yet been identified to occupy the warehouse, the Project may require a CUP upon project approval. The CUP mechanism is designed in part to provide additional assurance that particular uses are conditioned to avoid or mitigate a potential environmental effect. Such uses requiring a CUP are described in Section 3.7.3. Should an alternative use be proposed that is not specifically permitted in the M-2, M-1 or C-M Zones, a CUP may be required. Approval of a CUP is a discretionary action that would be subject to further environmental review. However, as the Project is designed to support an industrial warehouse use, many of the heavy manufacturing uses that would otherwise require a CUP are not feasible or practical alternatives for the Project design. Additionally, new construction would require the approval of a Site Plan and Design Review (DA).

For the reasons described above, the Project would not conflict with land use plans, policies or regulations and the impact would be **less than significant.**

3.7.5 Cumulative Impacts

Threshold:	*Would the proposed project, when considered together with other development in the city and region, result in a significant conflict with an applicable land use plan adopted for the purpose of avoiding or mitigating an environmental effect?*

The primary objectives of the General Plan's Community Development Element are to assist in the management of future growth, to improve the City's physical appearance, and to minimize potential land use conflicts. According to the General Plan, many of the City's larger mining properties available for residential, commercial, and industrial development will be available for redevelopment in the next 10 to 15 years. The City anticipates that these properties will attract new businesses and support job growth locally and regionally (City of Irwindale 2008). SCAG predicts that there will be 500 households and 21,500 jobs in Irwindale by 2040 (SCAG 2015). As the proposed Project is consistent with the City's General Plan land use designation for the site and aligns with the City's development goals, policies, and objectives to accommodate future growth, the proposed Project would not contribute to an adverse cumulative effect. The City of Irwindale will ensure that the rate of residential growth can be accommodated in light of the City's physical and economic constraints and that this growth can be served by public services and infrastructure. Therefore, cumulative impacts from development of the proposed Project would be **less than significant.**

3.7.6 Mitigation Measures

No mitigation is required.

3.7.7 Level of Significance after Mitigation

No mitigation measures are necessary and impacts would be less than significant.

3.8 Noise

3.8.1 Introduction

This section describes the existing noise conditions and potential Project noise impacts on the site and surrounding areas. Descriptions and analysis are based on information contained in the Noise Impact Assessment prepared in November 2019 by ECORP (Appendix I). The assessment was prepared as a comparison of predicted Project noise levels to noise standards promulgated by the City of Irwindale General Plan Noise Element and Municipal Code, the City of Baldwin Park Municipal Code, and the City of Arcadia Noise Standards.

3.8.2 Environmental Setting

3.8.2.1 Fundamentals of Sound and Environmental Noise

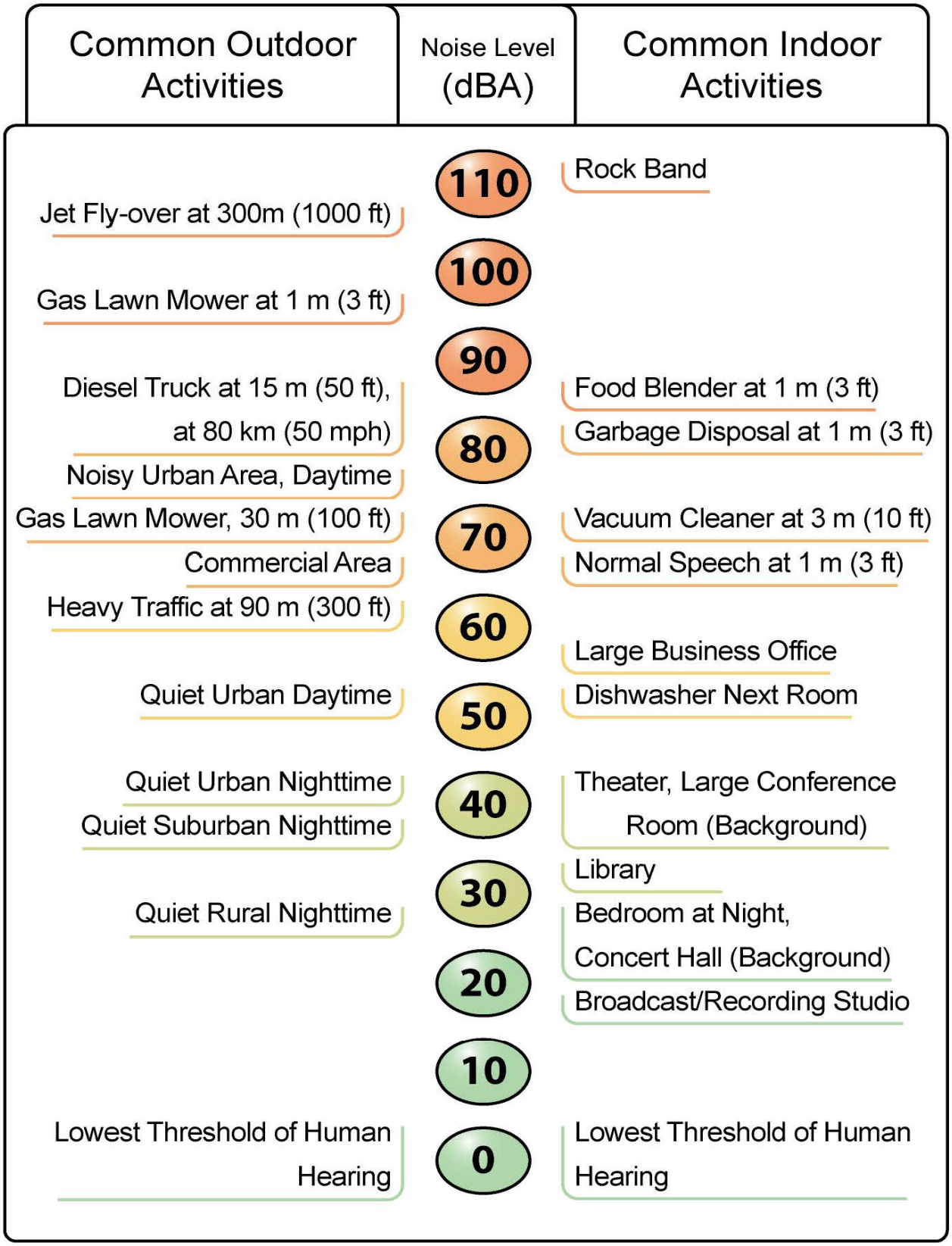
Addition of Decibels

The decibel (dB) scale is logarithmic, not linear; therefore, sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

Typical noise levels associated with common noise sources are depicted in Figure 3.8-1. Common Noise Levels.

Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed (FHWA 2011).



Source: California Department of Transportation (Caltrans) 2012

Figure 3.8-1. Common Noise Levels

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Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. [WEAL] 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend length-wise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL (Community Noise Equivalent Level) are measures of community noise. Each is applicable to this analysis and defined in Table 3.8-1.

Table 3.8-1 Common Acoustical Descriptors

Descriptor	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.

Table 3.8-1 Common Acoustical Descriptors

Descriptor	Definition
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	*That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.*

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Effects of Noise on People

Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. For ground vehicles, a noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance.

3.8.2.2 Fundamentals of Environmental Groundborne Vibration

Vibration Sources and Characteristics

Sources of vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared

amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Vibration Effects

Table 3.8-2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying.

Table 3.8-2 Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration

Peak Particle Velocity (inches/second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effect on Buildings
0.006–0.019	64–74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings
0.2	94	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
0.4–0.6	*98–104*	*Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges*	*Architectural damage and possibly minor structural damage*

Source: Caltrans 2004

3.8.2.3 Existing Ambient Noise Environment

The noise environment in the Proposed Project area is impacted by various noise sources. Mobile sources of noise, especially cars and trucks traveling on I-605 and Los Angeles Street, are the most common and significant sources of noise in Project area. Other sources of noise are the various land uses (i.e., residential, commercial and institutional) throughout the area that generate stationary-source noise. The Project site is located outside of any airport land use plan. Furthermore, the Project site is located beyond two miles from any airport; the San Gabriel Airport is the nearest airport to the Project site, located approximately three miles to the southwest).

The Project site does not currently support any industrial operations. The site surface is compacted with residual areas of concrete and several vacant buildings at the southern portion of the site associated with the prior industrial use. The site is surrounded by a mix of commercial, industrial, residential and undeveloped land uses. In order to quantify existing ambient noise levels in the Project area, Short-term noise measurements conducted in June 2019 were representative of typical existing noise exposure within and immediately adjacent to the Project site. The average noise levels and sources of noise measured at each location are listed in in Table 3.8-3.

Table 3.8-3 Existing (Baseline) Noise Measurements

Location Number	Location	Leq dBA	Lmin dBA	Lmax dBA	Time
1	On Los Angeles Street, adjacent to the Project site.	77.8	58.2	94.2	2:01 p.m.-2:11 p.m.
2	On Los Angles Street, south of the nearest residence.	71.2	53.3	87.4	2:23 p.m.-2:33 p.m.
3	In neighborhood east of the Project site along Hornbrook Avenue	63.4	48.8	87.2	2:42 p.m.-2:52 p.m.
4	Along Center Street just north of Los Angeles Street, within the neighborhoods adjacent to the Project site.	61.6	48.3	81.3	3:03 p.m.-3:13 p.m.

Source: Measurements were taken by ECORP with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. See Attachment A for noise measurement outputs.

Ambient recorded noise levels range from 61.6 to 77.8 dBA near the Project site. The most common noise in the Project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles). Traffic along I-605 and Los Angeles Street produces a sound level that remains relatively constant and is part of the Project Area's minimum ambient noise level. Vehicular noise varies with the volume, speed and type of traffic. Slower traffic produces less noise than fast-moving traffic. Trucks typically generate more noise than cars. Infrequent or intermittent noise also is associated with vehicles, including sirens, vehicle alarms, slamming of doors, trains, garbage and construction vehicle activity and honking of horns. These noises add to urban noise and are regulated by a variety of agencies.

3.8.2.4 Existing Roadway Noise Levels

Existing roadway noise levels were calculated for the roadway segments in the Project vicinity using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average daily noise levels along the roadway segments that impact sensitive noise receptors are presented in Table 3.8-4.

Table 3.8-4 Existing (Baseline) Traffic Noise Levels

Roadway Segment	Surrounding Uses	CNEL at 100 feet from Centerline of Roadway
Rivergrade Road		
South of Arrow Highway	Residential & Industrial	49.6
Interstate 605		
Southbound 605	Residential & Commercial	65.4
Lower Azusa Road		
West of Rivergrade Road	Residential & Commercial	58.3
Los Angeles Street		
East of Little John Street	Residential	62.4

Source: Traffic noise levels were calculated by ECORP Consulting using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by KOA Traffic Engineers (2019).

As shown, the existing traffic-generated noise level on Project-vicinity roadways currently ranges from 49.6 to 65.4 dBA CNEL. As previously described, CNEL is 24-hour average noise level with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

3.8.3 Regulatory Setting

Federal

Occupational Safety and Health Act of 1970

The Federal OSHA regulates on-site noise levels and protects workers from occupational noise exposure. To protect hearing, worker noise exposure is limited to 90 decibels with A-weighting (dBA) over an 8-hour work shift (29 Code of Regulations [CFR] 1910.95). Employers are required to develop a hearing conservation program when employees are exposed to noise levels exceeding 85 dBA. These programs include provision of hearing protection devices and testing employees for hearing loss on a periodic basis.

State

State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines (State of California 2003), published by the Governor's Office of Planning and Research (OPR), also provides guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

State Office of Planning and Research Noise Element Guidelines

The State OPR Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table (Table 3.8-5) that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL.

Table 3.8-5 Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 - 70	70-75	75-85
Residential - Multiple Family	50 – 65	60 - 70	70 – 75	70 - 85
Transient Lodging - Motel, Hotels	50 – 65	60 - 70	70 – 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 - 70	70 – 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 - 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 - 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 75	72.5 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 - 85
Office Buildings, Business Commercial and Professional	50 – 70	67.5 - 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 - 80	75 – 85	NA

Source: OPR, California, General Plan Guidelines, October 2003.
Notes:
NA: Not Applicable; L_{dn}: average day/night sound level; CNEL: Community Noise Equivalent Level

Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable - New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable – New construction or development should generally not be undertaken.

Local

City of Irwindale General Plan

The City of Irwindale General Plan uses the state's General Plan Guidelines for land use and noise compatibility in identifying noise-sensitive land uses. These provide a guide for compatibility of noise sensitive land uses in areas subject to noise. For instance, single-family residential uses are normally unacceptable in areas exceeding 70 dBA CNEL; though conditionally acceptable in areas experiencing noise levels between 55-70 dBA CNEL and always acceptable in areas experience noise levels less than 55 dBA CNEL. Commercial/professional office buildings and industrial land uses are normally unacceptable in areas exceeding 75 dBA CNEL; conditionally acceptable in areas experiencing noise levels within 67 to 78 dBA CNEL, and acceptable in areas with noise levels less than 67 dBA CNEL.

City of Irwindale Municipal Code

The City's Municipal Code (Chapter 9.28) regulates noise from all sources, both stationary and mobile. These regulations, shown in Table 3.8-6, provide a basis for assessing the compatibility of developments on the ambient noise environment. Any noise which exceeds the ambient or the ambient base level set forth below, whichever is greater, by more than ten dB when measured at the property line would constitute an impact.

Table 3.8-6. City of Irwindale Ambient Base Noise Levels - Proof of Impact

Zone	Ambient Base Noise Level	
	10:00 p.m. to 7:00 a.m.	7:00 a.m. to 10:00 p.m.
Residential	45	50
Commercial	50	55
Industrial	60	70

Source: City of Irwindale Municipal Code

The City's Municipal Code exempts construction noise from all noise standards, provided that construction is limited between the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday and is conducted with City permit. Construction noise occurring on Sundays or federal holidays is prohibited. Construction-related noise that occurs as a result of construction activities adhering to these daytime restrictions is deemed to comply with the City Municipal Code.

City of Baldwin Park Municipal Code

The City of Baldwin Park city limit is directly across Little John Street, east of the Project site. There are sensitive noise receptors consisting of single-family residences located within the City of Baldwin Park near the Project site. Baldwin Park Municipal Code Chapter 153, *Noise,* regulates noise. Baldwin Park Noise regulations are shown in Table 3.8-7.

Table 3.8-7. City of Baldwin Park Exterior Noise Standards

Zone	Allowable Noise Level (dBA)		
Residential	**7:00 a.m. – 7:00 p.m. (Day)**	**7:00 p.m. – 10:00 p.m. (Evening)**	**10:00 p.m. – 7:00 a.m. (Night)**
	55	50	45
Nonresidential Uses			
Commercial	**7:00 a.m. – 10:00 p.m. (Day and evening)**	**7:00 p.m. – 7:00 a.m. (Night)**	
	65	55	
Industrial	Anytime	65	

Source: City of Baldwin Park Municipal Code

The City of Baldwin Park Municipal Code Section 130.37, *Special Noise Sources*, exempts noise from construction, provided that construction is limited between the hours of 7:00 a.m. to 7:00 p.m.

City of Arcadia General Plan

The City of Arcadia's General Plan Noise Element is intended to minimize adverse noise impacts on residence and to preserve a quality noise environment. The Nosie Element recognizes that transportation is the dominant source of noise in the City and provides noise standards for new development impacted by transportation noise sources. These standards are presented in Table 3.8-8.

Table 3.8-8 City of Arcadia Interior/Exterior Noise Standards

Land Use	Maximum Exterior Noise Level	Maximum Interior Noise Level
Residential: Rural, Single-family and Multifamily	65 dBA CNEL	45 dBA CNEL
Schools		
Classroom	70 dBA CNEL	45 dBA leq
Playground	70 dBA CNEL	-
Libraries	-	45 dBA
Hospitals/ Convalescent Facilities		
Sleeping Areas	65 dBA CNEL	45 dBA CNEL
Living Areas	-	50 dBA Leq
Reception, Office	-	50 dBA Leq
Places of Worship	65 dBA CNEL	45 dBA L_{eq}
Open Space/ Recreation		
Wildlife Habitat	60 dBA CNEL	-
Passive Recreation Areas	65 dBA CNEL	-
Active Recreation Areas	70 dBA CNEL	-
Commercial and Business Park		
Office	-	55 dBA L_{eq}
Restaurant, Retail, Service	-	65 dBA L_{eq}
Warehousing/ Industrial	-	70 dBA L_{eq}

Source: City of Arcadia General Plan

3.8.4 Impact Analysis

3.8.4.1 Thresholds of Significance

The impact analysis is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. A significant noise-related impact would occur if the Project would result in:

1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2) Generation of excessive groundborne vibration or groundborne noise levels.

3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

3.8.4.2 Methodology

This analysis of the existing and future noise environments is based on noise prediction modeling and empirical observations. Predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Model (2008). Transportation-source noise levels in the Project vicinity were calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108). For Project operations the model was updated to reflect the anticipated amount of medium-duty and heavy-duty trucks generated by the Project, as supplied by KOA (2019), since these vehicles produce more noise than the average vehicle. On-site stationary source noise levels have been calculated with the SoundPLAN 3D noise model. Groundborne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical groundborne vibration levels associated with construction equipment.

For purposes of this analysis, the City of Irwindale, Baldwin Park and Arcadia numeric noise thresholds were used for evaluation of Project-related noise impacts. Consistent with the City of Irwindale standards, in the instance that the existing ambient noise levels already exceed the ambient base noise level, an increase of more than 10 dBA over the existing ambient noise level is considered significant. The cities of Baldwin Park and Arcadia do not provide guidance for determining a significant Project-related noise impact when the existing ambient noise levels already exceed the significance standard without the Project. As previously described, a change in level of at least 5 dBA is required before any noticeable change in community response would be expected. Therefore, in the case that the existing ambient noise levels already exceed the applicable numeric noise threshold within the cities of Baldwin Park and/or Arcadia, an increase of more than 5 dBA over the existing ambient noise level will be considered significant.

3.8.4.3 Project Impact Analysis

Impact 3.8.1 Project Construction and Operational Noise

Threshold:	*Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Project Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for on-site construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction

equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect residences in the vicinity of the construction site. As previously stated, the closest residences are located adjacent to the eastern boundary of the Project site, approximately 0.13 mile distant. It is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to Project sensitive receptors.

Noise levels associated with individual construction equipment types are summarized in Table 3.8-9.

Table 3.8-9 Typical Construction Equipment Noise Levels

Type of Equipment	Maximum Noise (L_{max}) at 50 Feet (dBA)	Maximum 8-Hour Noise (L_{eq}) at 50 Feet (dBA)
Crane	80.6	72.6
Dozer	81.7	77.7
Excavator	80.7	76.7
Generator	80.6	77.6
Grader	85.0	81.0
Other Equipment (greater than 5 horsepower)	85.0	82.0
Paver	77.2	74.2
Roller	80.0	73.0
Tractor	84.0	80.0
Dump Truck	76.5	72.5
Concrete Pump Truck	81.4	74.4
Welder	74.0	70.0

Source: FHWA, Roadway Construction Noise Model (FHWA-HEP-05-054), dated January 2008.
Note: Leq is the average acoustic energy content of noise for a stated period of time. Thus, the Leg of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or night, Lmax is the maximum and minimum A-weighted noise level during the measurement period.

The nearest noise-sensitive land uses consist of single-family residences 0.13 mile (686 feet) east of the Project site boundary. Based on the construction equipment noise levels listed in Table 3.8-9 and assuming an average noise attenuation rate of 6 dB per doubling of distance from the source, predicted maximum 8-hour noise levels at the nearest sensitive receptor would range from approximately 59.3 dBA L_{eq} to 47.3 dBA L_{eq}. As identified in Table 3.8-3, the existing baseline measurements conducted within this residential community (Measurement Locations #2 and #3), experiences ambient noise levels that already exceed these values (63.4 dBA to 71.2 dBA). Thus, temporary Project construction noise would typically be lower than noise levels currently experienced at these receptors.

Although the Project would occur in the City of Irwindale, the nearest sensitive receptors are located in the City of Baldwin Park. Neither the City of Irwindale nor the City of Baldwin Park promulgate a numeric threshold pertaining to noise associated with construction. Rather, both cities limit the time that construction can take place between the hours of 7:00 a.m. and 7:00 p.m. This is because construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Project. Furthermore, the cities of Irwindale and Baldwin Park are developed communities where construction noise is generally considered commonplace and acceptable within the urban environment. Lastly, construction would occur throughout the Project site and would not be concentrated at one point. Therefore, noise associated with construction activities, as long as conducted within the permitted hours, would not exceed any noise standards.

For these reasons, Project construction noise impacts would be **less than significant.**

Project Operational Noise

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise. The nearest noise-sensitive land uses consist of single-family residences located 0.13 mile east of the Project site.

Operational noise sources associated with the Proposed Project include mobile and stationary (i.e., mechanical equipment, warehouse operations) sources.

Operational Traffic Noise

Future traffic noise levels throughout the Project vicinity (i.e., vicinity roadway segments that traverse noise sensitive residential land uses) were modeled based on the traffic volumes identified by KOA (2019) to determine the noise levels along Project vicinity roadways. Table 3.8-10 shows the calculated off-site roadway noise levels under existing traffic levels compared to future buildout of the Project. The calculated noise levels as a result of the Project at affected sensitive land uses are compared to the noise standards in the City of Arcadia General Plan (see Table 3.8-8) for the segment of Lower Azusa Road west of I-605 and Rivergrade Road, and the City of Baldwin Park Municipal Code Noise Standards (see Table 3.8-7) for the segments on Rivergrade Road, south of Arrow Highway, Interstate 605, south of Lower Azusa Road, and Los Angeles Street, east of Little John Street and Interstate 605. In the case that the existing ambient noise levels already exceed the applicable numeric noise threshold within the cities of Baldwin Park and/or Arcadia, an increase of more than 5 dBA over the existing ambient noise level is considered significant.

Table 3.8-10. Existing Plus Project Conditions - Predicted Traffic Noise Levels

Roadway Segment[1]	Surrounding Uses	CNEL at 100 feet from Centerline of Roadway		Noise Standard (dBA CNEL)[3]	Exceed Standard / Significant Impact?
		Existing Conditions	Existing + Project Conditions[2]		
Rivergrade Road					
South of Arrow Highway	Residential & Industrial (In the City of Baldwin Park)	49.6	49.6	55.0	**No**
Interstate 605					
South of Lower Azusa Road	Residential & Commercial (In the City of Baldwin Park)	65.4	66.2	70.5	**No**
Lower Azusa Road					
West of Rivergrade Road	Residential & Commercial (In the City of Arcadia)	58.3	58.3	65.0	**No**
Los Angeles Street					
East of Little John Street	Residential (In the City of Baldwin Park)	62.4	62.4	67.4	**No**

Source: Traffic noise levels were calculated by ECORP Consulting using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by KOA 2019.

Note: [1]A total of 13 intersections were analyzed in the Traffic Impact Study; however, only roadway segments that impact sensitive receptors were included for the purposes of this analysis

[2]The percentage of medium-duty and heavy-duty trucks was updated to reflect the Project traffic fleet mix supplied by KOA, since medium-duty and heavy-duty trucks produce more noise than the average vehicle

[3]The roadway segment on Interstate 605, south of Lower Azusa Road and the segment on Los Angeles Street, east of Little John Street already generate noise levels in excess of City of Baldwin Park noise standards (55 dBA) without the Project. Therefore, in the case of these two segments, the Project significance threshold equates to an increase of more than 5 dBA over the existing ambient noise level.

As shown in Table 3.8-10, two Project roadway segments are already experiencing roadway noise that exceeds respective noise standards under existing conditions. Thus, Project-generated traffic noise for those two segments (Interstate 605, south of Lower Azusa Road and Los Angeles Street, east of Little John Street) is compared to a significance threshold of a contribution of more than 5 dBA over the existing ambient noise level. As shown, the Project would not contribute to an increase of noise levels more than 5 dBA on either of these Project vicinity roadway segments. Additionally, the other two Project roadway segments do not exceed respective noise standards. No applicable noise standards would be exceeded by Project traffic.

For these reasons, Project operational traffic noise impacts would be **less than significant.**

Operational Stationary Noise

The main stationary operational noise associated with the Project would be warehouse-related activity, such as trucks idling and maneuvering the site. Table 3.8-11 shows the predicted Project noise levels at the six locations in the Project vicinity. Four of these locations (1 – 4) are where the existing baseline noise measurements were taken, while the additional two locations (5 & 6) are the nearest buildings to the Project site, which house industrial operations. Figure 3.8-2. *Onsite Noise Source Propagation*, depicts the predicted noise levels in the Project vicinity from Project operations.

Table 3.8-11. Modeled Operational Noise Levels

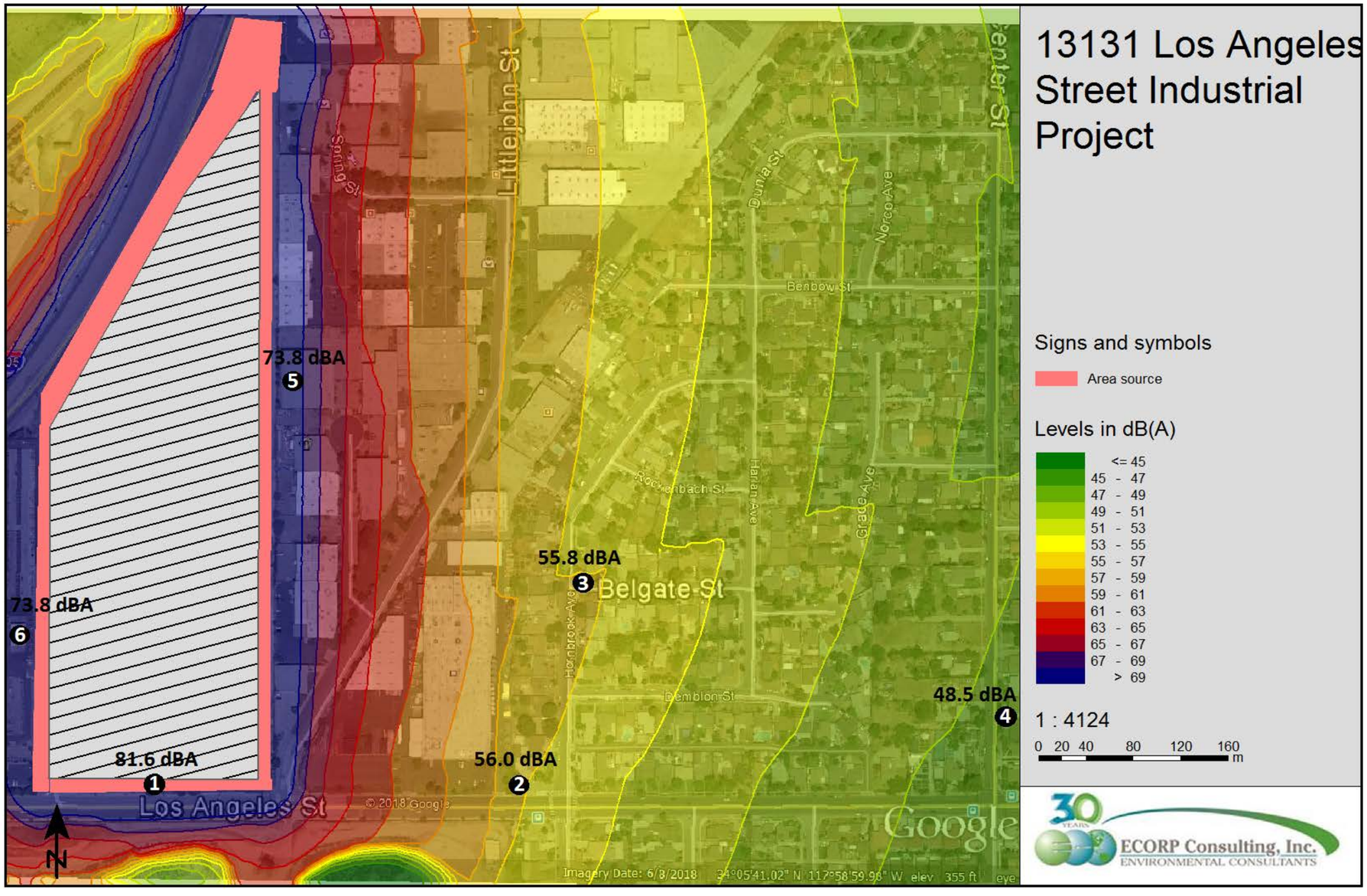
Site Location	Location	Baseline Noise Measurements (L_{eq} dBA)	Modeled Operational Noise Attributable to Project (L_{eq} dBA)	City Standards (dBA)[2]	Exceed Standard?
1	On Los Angeles Street, adjacent to the Project site. (**Irwindale**)	77.8	**81.6**	87.8	**No**
2	On Los Angles Street, south of the nearest residence. (**Baldwin Park**)	71.2	**56.0**	76.2	**No**
3	In neighborhood east of the Project site along Hornbrook Avenue. (**Baldwin Park**)	63.4	**55.8**	68.4	**No**
4	Along Center Street just north of Los Angeles Street, within the neighborhoods adjacent to the Project site. (**Baldwin Park**)	61.6	**48.5**	66.6	**No**
5	Industrial use east of the Project site. (**Irwindale**)	N/A	**73.8**	80.0	**No**
6	Industrial use west of the Project site. (**Irwindale**)	N/A	**73.8**	80.0	**No**

Source: Stationary source noise levels were modeled by ECORP Consulting using SoundPLAN 3D noise model. Refer to Attachment C for noise modeling assumptions and results.

Notes: [1]Source noise measurements identify 79 dBA for heavy-duty truck maneuvering per the San Jose Loading Dock Noise Study 2014. This reference measurement informed the SoundPLAN model to predict Project noise propagation.

[2]Consistent with the City of Irwindale standards, in the instance that the existing ambient noise levels already exceed the ambient base noise level in Irwindale, an increase of more than 10 dBA over the existing ambient noise level is considered significant. The cities of Baldwin Park and Arcadia do not provide guidance for determining a significant Project-related noise impact when the existing ambient noise levels already exceed the significance standard without the Project. In the case that the existing ambient noise levels already exceed the applicable numeric noise threshold within the cities of Baldwin Park and/or Arcadia, an increase of more than 5 dBA over the existing ambient noise level will be considered significant.

As depicted in Table 3.8-6 above, Irwindale's ambient base noise level for land uses zoned for 'Industrial' land uses, like that of the Project and the areas directly adjacent to the Project site, is 60 dBA from 10:00 p.m. to 7:00 a.m. (nighttime) and 70 dBA from 7:00 a.m. to 10:00 p.m. (daytime). Any noise which exceeds the ambient base level, set forth in Table 3.8-6, by more than ten dB when measured at the property line is deemed unacceptable. Project operations would take place between 7:00 a.m. and 6:00 p.m. and are thus compared to the City of Irwindale's daytime noise standard of ten dBA above the ambient base level of 70 dBA at the adjacent 'Industrial' land uses (i.e., 80 dBA). These nearby 'Industrial' land uses, located in the City of Irwindale, are represented as Location 5 and Location 6 in Table 3.8-11. The primary Project stationary source would be the movement of trucks on the Project site. Truck movements include including truck approach, backup alarms, idling, air brake discharge, engine ignition, and truck pull away. Project noise levels at Location 5 and Location 6 have the potential to experience noise levels up to 73.8 dBA. Thus, Project operations would not exceed the ambient base level for 'Industrial' land uses, set forth in Table 3.8-6, by more than 10 dBA.



Map Date: *6/27/2019*
Photo (or Base) Source: *SoundPLAN*

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 3.8-2. Onsite Noise Source Propogation

2019-030 Irwindale Industrial Spec Tilt-Up Project

The City of Baldwin Park, located east of the Project site, promulgates noise standards in Chapter 153 of its Municipal Code. As depicted in Table 3.8-7, the City of Baldwin Park regulates exterior noise standards for various land uses. Areas zoned 'Residential', such as the land uses located east of the Project site, have a daytime standard of 55 dBA. As shown in Table 3.8-11 above, Project-generated noise levels at the nearest residence, Location 2, have the potential to reach up to 56 dBA during Project operations. Project-generated noise levels at the neighborhood east of the Project site along Hornbrook Avenue (Location 3) have the potential to reach 55.8 dBA. These values exceed the day, evening and night noise standards for residences. However, the existing baseline noise levels at Location 2 were measured as 71.2 dBA and the existing baseline noise levels at Location 3 were measured at 63.4 dBA. As such, these residences already experience noise levels in excess of City of Baldwin Park standards. As previously described, where existing ambient noise levels already exceed the numeric noise threshold within Baldwin Park, an increase of more than 5 dBA over the existing ambient noise level is considered significant. As shown in Table 3.8-11, on-site Project noise would not surpass the noise levels that are already experienced in at Locations 2 and 3. The same is the case at the Baldwin Park residences represented at Location 4. Therefore, Project noise would not result in an increase of 5 dBA or more over the existing ambient noise level currently experienced.

For these reasons, Project operational stationary noise impacts would be **less than significant.**

Impact 3.8.2 Groundborne Vibration or Groundborne Noise

Threshold:	*Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Groundborne Vibration During Construction

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Proposed Project would be primarily associated with short-term construction-related activities. Construction on the Project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is noted that pile drivers would not be necessary during Project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 3.8-12.

Table 3.8-12. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 20 Feet (inches per second)
Large Bulldozer	0.123
Caisson Drilling	0.123
Loaded Trucks	0.105
Rock Breaker	0.082
Jackhammer	0.048
Small Bulldozer/Tractor	0.004

Source: FTA 2018; Caltrans 2004

The City of Irwindale does not regulate vibrations associated with construction. As a result, the Caltrans's (2004) recommended standard of 0.2 inches per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings.

Project construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest offsite structure. The nearest structures of concern to the construction site are associated with an 'Industrial' use located approximately 20 feet to the east. Based on the vibration levels presented in Table 3.8-12, ground vibration generated by heavy-duty equipment would not exceed approximately 0.123 inches per second PPV at 20 feet. Thus, the structure located at 20 feet would not be negatively affected. Predicted vibration levels at the nearest structures would not exceed recommended criteria.

For these reasons, Project construction groundborne vibration and noise impacts would be **less than significant.**

Groundborne Vibration During Operations

Project operations would not include the use of any stationary equipment that would result in excessive vibration levels. While the Project would accommodate heavy-duty trucks, these vehicles can only generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances. Therefore, the Project would result in negligible groundborne vibration impacts during operations.

For these reasons, Project groundborne vibration impacts during operations would be **less than significant.**

Impact 3.8.3 Exposure of People to Noise from Private Airstrip or Public Airport

Threshold 3:	*For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The closest airport to the Proposed Project site is San Gabriel Airport, located approximately 2.6 miles to the southwest. The Project site is not addressed in the airport's land use plan. There are no private airstrips in the vicinity of the Project. The Project would not expose people working in the Proposed Project area to excessive noise levels. **No impact would occur.**

3.8.5 Cumulative Impact Analysis

3.8.5.1 Cumulative Construction Noise Impact

Construction activities associated with the Proposed Project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to the construction site. The nearest Related Projects [CEQA 15355(b)] for purposes of cumulative impact evaluation of construction impacts are approximately one-mile away from the Project site (Table 3.0-1 Related Area Projects; Figure 3.0-1 Location of Related Area Projects). Construction noise for the Proposed Project was determined to be less than significant following compliance with the City of Irwindale Municipal Code and the City of Baldwin Park's Municipal Code. Though the vicinity of the Project site is essentially developed with existing uses, additional development or redevelopment in the immediate vicinity of the Project site during the Project construction time frame could result in elevated construction noise levels at sensitive receptors in the Project area. However, each project would be required to comply with the applicable city's Municipal Code limitations on construction. Therefore, the Project would not contribute to cumulative impacts during construction and **no impact would occur.**

3.8.5.2 Cumulative Traffic Source Noise Impact

Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to operations of the Project and other projects in the vicinity. A project's contribution to a cumulative traffic noise increase could be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the "Cumulative Plus Project" condition to "Existing" conditions. This comparison accounts for the traffic noise increase generated by a project combined with the traffic noise increase generated by projects in the area. The incremental effect compares the "Cumulative Plus Project" condition to the "Cumulative No Project" condition.

The following combined effect and incremental effect criteria have been utilized to evaluate the overall effect of the cumulative noise increase.

Combined Effect

The cumulative with Project noise level ("Cumulative Plus Project") would cause a significant cumulative impact if a 3.0 dB increase over Existing Conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the Proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the Proposed Project.

Incremental Effects

The "Cumulative Plus Project" causes a 1.0 dBA increase in noise over the "Cumulative No Project" noise level.

A significant impact would result only if *both* the combined and incremental effects criteria have been exceeded at a single roadway segment, since such would indicate that there is a significant noise increase due to the Proposed Project in combination with other related projects AND a significant portion of the noise increase is due to the Proposed Project. Noise by definition is a localized phenomenon and reduces as distance from the source increases. Consequently, only the Proposed Project and growth due to occur in the Project site's general vicinity would contribute to cumulative noise impacts. Table 3.8-13 lists the traffic noise effects along roadway segments in the Project vicinity for "Existing," "Cumulative No Project," and "Cumulative Plus Project," conditions, including incremental and net cumulative impacts.

Table 3.8-13. Cumulative Traffic Noise Scenario

Roadway Segment	Existing	Cumulative No Project	Cumulative Plus Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	CNEL @ 100 Feet from Roadway Centerline	CNEL @ 100 Feet from Roadway Centerline	CNEL @ 100 Feet from Roadway Centerline	Difference in CNEL Between Existing and Cumulative + Project	Difference in CNEL Between Cumulative No Project and Cumulative + Project	
Rivergrade Road						
South of Arrow Highway	49.6	49.8	49.8	**0.2**	**0.0**	**No**
Interstate 605						
Southbound 605	65.4	65.8	66.5	**1.1**	**0.7**	**No**
Lower Azusa Road						
West of Rivergrade Road	58.3	58.5	58.6	**0.3**	**0.1**	**No**
Los Angeles Street						
East of Little John Street	62.4	62.4	62.4	**0.0**	**0.0**	**No**

Source: Traffic noise levels were calculated by ECORP Consulting using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by KOA 2019.

Note: The percentage of medium duty and heavy-duty trucks is derived from the Traffic Impact Study (KOA 2019). Medium duty and heavy-duty trucks produce more noise than the average vehicle. Roadway segments analyzed are in the Project vicinity and traverse noise sensitive residential land uses.

No significant cumulative traffic noise impact would result on any of the Project vicinity roadway segments traversing noise sensitive residential land uses. Project-generated traffic noise would not exceed either the incremental effect threshold of a 1.0 dBA increase over the Cumulative No Project scenario, or the combined effect threshold of a 3.0 dBA increase over Existing Conditions. Therefore, no perceptible increase of traffic noise would occur as a result of the Cumulative Plus Project scenario.

For these reasons, cumulative traffic source noise impacts would be **less than significant.**

3.8.5.3 Cumulative Stationary Source Noise Impact

Long-term stationary noise sources associated with the development at the Project, combined with other cumulative projects could cause localized noise level increases. Noise levels associated with the Proposed Project and related cumulative projects together could result in higher noise levels than considered separately. Although the surrounding land uses are already experiencing levels above the City's noise standards, on-site noise sources associated with the Proposed Project would not increase noise levels above the current ambient noise environment and would not be increasing noise levels by more than 10 dBA in Irwindale or 5 dBA in either Arcadia or Baldwin Park. Therefore, the Project would not contribute to cumulative impacts during operations.

For these reasons, cumulative stationary source noise impacts would be **less than significant.**

3.8.6 Mitigation Measures

No mitigation measures are necessary.

3.8.6.1 Level of Significance After Mitigation

Less than significant impact.

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3.9 Transportation

3.9.1 Introduction

Information in this section is derived from the Traffic Impact Study prepared by KOA Corporation (2019) included in Appendix J. The proposed Project is an industrial building of 525,000 square feet in interior floor area. Access would be provided by site driveways on Los Angeles Street at the south side of the site and on Rivergrade Road at the northwest side of the site. The project tenants are not yet identified but are anticipated to be warehouse or light industrial land uses. The Project is anticipated to be completed and occupied in the year 2021.

3.9.2 Environmental Setting

Project Study Area

The project study includes the following 13 study intersections:

1. I-605 Southbound Off-ramp/Arrow Highway
2. I-605 Northbound On-ramp/Arrow Highway
3. Rivergrade Road/ Arrow Highway
4. Stewart Avenue/ Rivergrade Road
5. I-605 Southbound On-ramp/Live Oak Avenue
6. I-605 Northbound Off-ramps/Live Oak Avenue
7. Graham Access Road/ Live Oak Avenue
8. Rivergrade Road/Live Oak Avenue
9. Rivergrade Road/Commerce Drive
10. Rivergrade Road/Brooks Avenue
11. I-605 Southbound Ramps/Los Angeles Street
12. I-605 Northbound Ramps/Los Angeles Street
13. Little John Street/Los Angeles Street

A signal warrant analysis was conducted for the main/south site driveway on Los Angeles Street. Project-related impacts were also assessed at 12 mainline locations on the I-10, I-210 and I-605 freeways, and at eight ramp locations on the 605 freeway. The locations are listed below.

3.9.2.1 Mainline Locations

1. I-210 West of I-605
2. I-605 SB North of Arrow Hwy
3. I-605 SB Arrow Hwy to Live Oak

4. I-605 SB Live Oak to Lower Azusa
5. I-605 SB South of Lower Azusa
6. I-10 West of I-605
7. I-10 East of I-605
8. I-605 NB South of Lower Azusa
9. I-605 NB Lower Azusa to Live Oak
10. I-605 NB Live Oak to Arrow Highway
11. I-605 NB North of Arrow Highway
12. I-210 East of I-605

3.9.2.2 I-605 Ramp Locations

1. NB Off at Los Angeles Street
2. NB On from Los Angeles Street
3. NB Off at Live Oak avenue
4. NB On from Arrow Highway Eastbound
5. NB On from Arrow Highway Westbound
6. SB Off at Arrow Highway
7. SB On from Live Oak Avenue
8. SB Off at Lower Azusa Road
9. SB On from Lower Azusa Road

Figure 3.9-1 illustrates the locations of the study intersections. Details on the freeway LOS analysis are provided in Section 3.9.4.

3.9.2.3 Existing Roadway System

The key roadways within the study area are described here. The discussion is limited to specific roadways that traverse the study intersections and serve the Project site. Figure 3.9-1 illustrates the existing traffic controls and approach lane geometries at the study intersections.

Arrow Highway is classified, in the study area vicinity, as a Main Arterial Highway by the City of Irwindale General Plan. This roadway provides two travel lanes in each direction. On-street parking is generally prohibited on both sides of the roadway. The posted speed limit is 45 miles per hour.

Brooks Drive is classified as a Residential Roadway in the City of Baldwin Park General Plan. This roadway provides 1 travel lane in each direction. On-street parking is prohibited on both sides of the roadway west (or north) of Little John Street and permitted on both sides of the roadway east of Little John Street. The prima facie speed limit is 25 miles per hour.

Commerce Drive is classified as a Collector Street in the City of Irwindale General Plan. The roadway provides one lane of travel in each direction. On-street parking is generally prohibited on both sides of the roadway. The posted speed limit is 40 miles per hour.

Little John Street is classified as a Residential Roadway in the City of Baldwin Park General Plan. This roadway provides one travel lane in each direction. On-street parking is permitted on the north half of the roadway (towards Brooks Drive) and prohibited on the south half (towards Los Angeles Street). The posted speed limit is 40 miles per hour.

Live Oak Avenue is classified by the Irwindale General Plan as a Major Highway east of the junction with Arrow Highway. This roadway generally provides two travel lanes in westbound direction and three lanes in the eastbound direction. On-street parking is generally prohibited on both sides of the roadway. The posted speed limit is 45 miles per hour.

Los Angeles Street/Lower Azusa Road is classified as a Secondary Highway in the City of Irwindale General Plan and as a Collector/Industrial Roadway in the City of Baldwin Park General Plan. This roadway provides two travel lanes in each direction. On-street parking is generally prohibited on both sides of the roadway. The posted speed limit is 45 miles per hour.

Rivergrade Road is classified as a Secondary Highway in the City of Irwindale General Plan. The roadway provides two lanes of travel in each direction. On-street parking is generally prohibited on both sides of the roadway. The posted speed limit ranges from 40 to 50 miles per hour.

Stewart Avenue is classified as a Collector Street in the Irwindale General Plan. This roadway provides two travel lanes in each direction. On-street parking is generally prohibited on both sides of the roadway. The posted speed limit is 30 miles per hour.

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Figure 3.9-1. Study Intersection Locations

2019-030 Irwindale Industrial Spec Tilt-Up Project

3.9.2.4 Existing Transit Service

The vicinity of the proposed Project site is served by bus transit lines operated by Foothill Transit. Table 3.9-1 provides a description of the service provided by these lines.

Table 3.9-1 – Existing Transit Service Summary

Agency	Line	From	To	Via	Peak Frequency
Foothill Transit	178	El Monte Bus Station	Puente Hills Mall	Valley Boulevard, Cogswell Road, Lower Azusa Road, Los Angeles Street, West Covina Parkway	28 minutes
Foothill Transit	492	El Monte Bus Station	Montclair Metrolink	Arrow Highway, Live Oak Avenue	19-20 minutes
Foothill Transit	272	Duarte	West Covina Parkway/California Avenue	Buena Vista Street, Arrow Highway, Rivergrade Road, Stewart Avenue, Baldwin Park Blvd	30 minutes

3.9.2.5 Existing Traffic Volumes

Vehicle turning movement counts were collected at the study intersections on April 10th and April 11th of 2019 from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. Counts included auto and truck counts, with the latter categorized by number of axles. Passenger Car Equivalency (PCE) factors were applied to the truck volumes based on categories of axle numbers – two, three, and four plus. Existing weekday a.m. peak-hour and p.m. peak-hour traffic turn movement volume count summaries are provided in Appendix J of this report.

3.9.2.6 Existing Intersection Level of Service

Based on the intersection lane configurations and the existing traffic volumes, volume-to-capacity ratios and average delay values and corresponding levels of service (LOS) were determined for each of the study intersections during the weekday a.m. and p.m. peak hours. Table 3.9-2 summarizes the volume-to-capacity ratios and LOS values for existing traffic conditions.

Table 3.9-2 – Study Intersection Existing Conditions

	Study Intersections	Weekday AM		Weekday PM	
		V/C or Delay	LOS	V/C or Delay	LOS
1	I-605 Southbound Off-ramp/Arrow Highway	1.134	**F**	0.620	B
2	I-605 Northbound On-ramp/Arrow Highway	0.000	-	0.000	-
3	Rivergrade Road/ Arrow Highway	0.723	C	0.625	B
4	Stewart Avenue/ Rivergrade Road	0.337	A	0.356	A
5	I-605 Southbound On-ramp/Live Oak Avenue	0.849	D	1.248	**F**
6	I-605 Northbound Off-ramps/Live Oak Avenue*	1081.6	**F**	606.9	**F**
7	Graham Access Road/ Live Oak Avenue	0.655	B	0.670	B
8	Rivergrade Road/Live Oak Avenue	0.649	B	0.961	**E**
9	Rivergrade Road/Commerce Drive*	24.1	C	25.1	D
10	Rivergrade Road/Brooks Avenue	0.475	A	0.370	A
11	I-605 Southbound Ramps/Los Angeles Street	0.788	C	0.796	C
12	I-605 Northbound Ramps/Los Angeles Street	0.913	**E**	0.916	**E**
13	Little John Street/Los Angeles Street	0.578	A	0.748	C

LOS = Level of Service

V/C= Volume to Capacity Ratio

**Stop-controlled intersections analyzed using the Highway Capacity Manual (HCM) delay-based methodology.*

Eight of the 13 study intersections are currently operating at LOS D or better during the weekday a.m. and p.m. peak hours. The following intersections operate at LOS E or F during one or both peak periods:

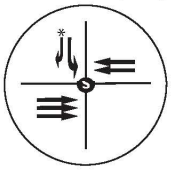
- I-605 Southbound Off-ramp/Arrow Highway
- I-605 Southbound On-ramp/Live Oak Avenue
- I-605 Northbound Off-ramps/Live Oak Avenue
- Rivergrade Road/Live Oak Avenue
- I-605 Northbound Ramps/Los Angeles Street

Existing lane configurations are depicted in Figure 3.9-2. The existing traffic volumes for the weekday a.m. and p.m. peak hours are illustrated on Figure 3.9-3.

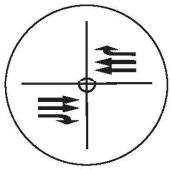
LANE CONFIGURATION

- Signalized Intersection
- Intersection Lane Geometry
- Stop Sign Controlled Intersection
- Stop Sign Location
- Uncontrolled, right-turn only

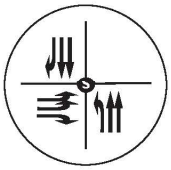
1 I-605 SB Off-ramp & Arrow Highway



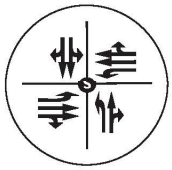
2 I-605 NB On-ramps & Arrow Highway



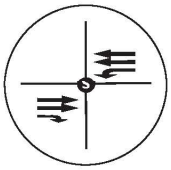
3 Arrow Highway & Rivergrade Road



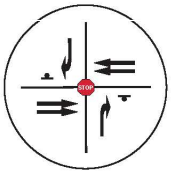
4 Stewart Avenue & Rivergrade Road



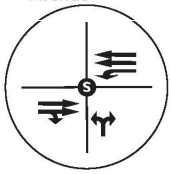
5 I-605 SB On-ramp & Live Oak Avenue



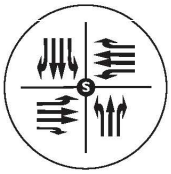
6 I-605 NB Off-ramps & Live Oak Avenue



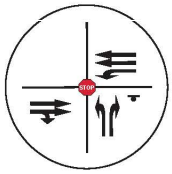
7 Graham Access Road & Live Oak Avenue



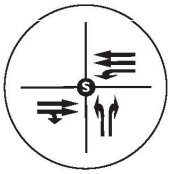
8 Rivergrade Road & Live Oak Avenue



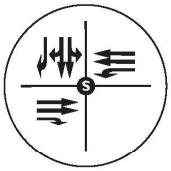
9 Rivergrade Road & Commerce Drive



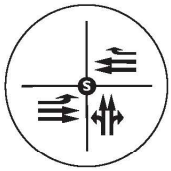
10 Rivergrade Road & Brooks Drive



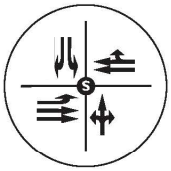
11 I-605 SB Ramps & Lower Azusa Road



12 I-605 NB Ramps & Los Angeles Street



13 Littlejohn Street & Los Angeles Street



* Small lanes are channelized

Figure 3.9-2. Existing Study Intersection Lane and Control Configurations

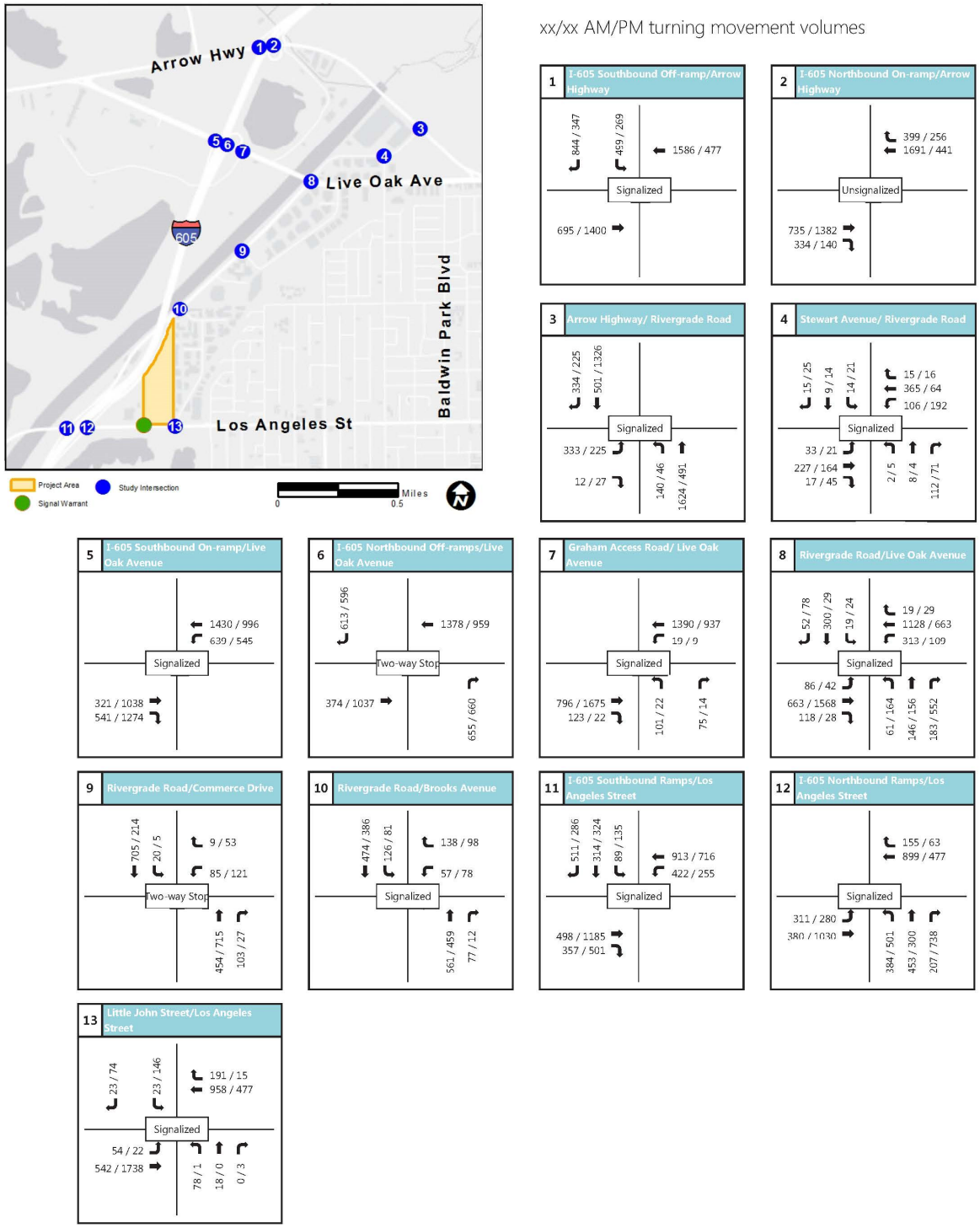


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Figure 3.9-3. Existing AM/PM Peak Hour Traffic Volumes

2019-030 Irwindale Industrial Spec Tilt-Up Project

3.9.3 Regulatory Setting

There are no applicable federal agency regulations that would apply to traffic for this Project.

State

SB-743

On September 27, 2013, California Governor Jerry Brown signed Senate Bill (SB) 743 into law, which creates a process to change the way that transportation impacts are analyzed under California Environmental Quality Act (CEQA). SB 743 requires that the Governor's Office of Planning and Research (OPR) amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Measurements of transportation impacts may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated" (New Public Resources Code Section, 21099(b)(1)).

On August 6, 2014, OPR released for public review a preliminary discussion draft of changes to the CEQA Guidelines. The second set of guidelines was released on January 20, 2016, and recommends that transportation impacts under CEQA will be evaluated using VMT. Local jurisdictions will still be allowed to assess impacts using methodologies in addition to VMT. In 2018 the guidelines were officially adopted, providing jurisdictions with an opt-in period lasting until July 1, 2020 to update their respective guidance to comply and to incorporate required VMT thresholds into their CEQA-related transportation impact review for projects.

Under these updated CEQA Guideline changes, LOS would no longer be considered as a basis for determining significant impacts in many parts of California. Furthermore, parking impacts would also not be considered significant impacts under CEQA for select development projects within infill areas that are near frequent transit service. At this time, the City has not adopted new traffic impact study guidelines in accordance with SB 743, As such, this analysis is based on the City's current and existing traffic study guidelines, which use LOS and delay as a measure for significant transportation impacts under CEQA.

State of California Department of Transportation

Pursuant to the Caltrans *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002) and based on recent coordination with Caltrans, analyses of State highway facilities should be conducted when and if a proposed project is expected to add 50 or more peak hour trips in either direction on a freeway mainline segment or 10 or more peak hour trips to a freeway off-ramp location. Although the proposed project at build-out is not expected to generate 50 or more vehicle trips, during either the AM or PM peak commute hours, at any of the freeway mainline locations, analysis was prepared for mainline freeway segments in the project vicinity pursuant to Caltrans analysis methodologies. The proposed project is expected to add 10 or more vehicle trips during the AM and/or PM commute peak hours to some of the adjacent freeway ramp locations. Therefore, intersection analyses were prepared for Caltrans ramp study intersections in the project vicinity pursuant to Caltrans analysis methodologies.

Local

Los Angeles County Congestion Management Program

The City is subject to the Los Angeles County Congestion Management Plan (CMP). The Los Angeles County CMP was created statewide because of Proposition 111 and was implemented locally by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP for Los Angeles County requires that the traffic impact to be analyzed for individual development projects that may have regional significance. A specific system of arterial roadways plus all freeways comprise the CMP system. A total of 164 intersections are identified for monitoring on the system in Los Angeles County.

CMP Transportation Impact Analysis (TIA) Guidelines are provided in the 2010 CMP for Los Angeles County. According to these guidelines, an analysis of the effects that a project may have on the CMP system is conducted in the following instances:

- If the project is projected to add 50 or more vehicle trips during either AM or PM weekday peak hours to CMP arterial monitoring intersections, including freeway onramps or off-ramps.
- If the project is projected to add 150 or more trips in either direction during either the AM or PM weekday peak hours at CMP mainline freeway monitoring locations.

The proposed project was reviewed for its potential to trigger the above thresholds, which would then require the project to be further analyzed under the CMP. This review is summarized in Section 3.9.4.3, Impact Analysis--Congestion Management Program and Freeway Facility Impacts.

City of Irwindale General Plan Update

The Infrastructure Element of the City's General Plan Update includes the following programs and policies applicable to the proposed project:

- **Caltrans Coordination.** The City will coordinate efforts with Caltrans to upgrade area freeways. The purpose of this undertaking is to ensure that the City is fully appraised of roadway and facility improvement efforts in the early stages of planning and design. The City will continue to work with Caltrans and the Metro, as appropriate, and will request to be on all notification lists of future projects that may impact the City.
- **Environmental Review.** The City shall continue to evaluate the environmental impacts of new development and provide mitigation measures prior to development approval, as required by the CEQA. Environmental review shall be provided for major projects and those that will have a potential to adversely affect traffic in the City. Among those issues that may be addressed in the environmental analysis are traffic, parking, and circulation. In compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of mitigation measures. The City's environmental review procedures are currently in place.
- **Mitigation Fee/User Fee Study.** The City will explore strategies to ensure that the City's residents do not bear an undue burden associated with new development. The City will determine a reasonable and fair method of assessing new development for the cost of providing any

additional infrastructure required by the development. The first step of this program's implementation calls for the preparation of a mitigation fee strategy study to be initiated by the City Manager. The subsequent phases of this program will involve examining the current truck fees to ensure that the City is receiving its fair share of licensing fees, given the relatively high volumes of truck traffic in the City.

- **Signalization**. The City will strive to provide optimum signalization on major thoroughfares to maximize circulation efficiency, such as participation in a regional signalization program. City staff will outline both the need and strategy for improved signalization. Coordination with Caltrans, the Department of Public Works, Los Angeles County, and Metro will be emphasized.
- **I-605 Freeway Ramps**. The City will encourage the upgrade and construction of freeway ramps to and from the I-605 Freeway. Future uses and heavy demand in and around the I- 605 Freeway will benefit from these improvements.
- **Infrastructure Element Policy 4**. The City of Irwindale will strive to ensure that all new development implements its "fair-share" of infrastructure improvement to offset the potential adverse impacts associated with the additional traffic that will be generated by the new development.

Specific guidance for preparation of traffic studies is provided in the *Irwindale Traffic Study Guidelines* (August 2014).

3.9.4 Impact Analysis

3.9.4.1 Thresholds of Significance

The impact analysis is based on the following CEQA Guidelines Appendix G thresholds of significance. A significant transportation-related impact would occur if the Project would:

1) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

2) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

3) Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

4) Result in inadequate emergency access?

3.9.4.2 Methodology

Project Trip Generation

The trip generation of the project was calculated using nationally-accepted rates defined by the Institute of Transportation Engineers (ITE) –*Trip Generation (10th edition)*. The light industrial rate is the highest

rate in the larger industrial land use category within the ITE reference, and therefore the application of that rate is more conservative.

Given the site's industrial nature, the trip generation total distinguished between truck trips and passenger car/small commercial vehicle trips. The truck trip percentages (including the breakdown of trucks by number of axles) were taken from a 2003 Truck Trip Generation study conducted by the city of Fontana. Passenger Car Equivalent Rates were applied to the different truck axle categories to determine the amount of passenger car traffic equal to the generated truck traffic (given the trucks' larger size). The passenger car equivalent trips were added to the passenger car/small commercial vehicle trip total to derive the aggregate trip generation.

Credits for a former use at the site were then subtracted from the aggregate trip generation, as the site could potentially be used again with a similar use under current conditions. Information on the previous site use was compiled by the City of Irwindale, and as the use had primarily outdoor operations, floor area calculations would not be accurate. The number of employees that had been assigned to that operation was defined, which served as the basis for trip generation of the previous use. The resulting trip generation calculations were applied as a credit. The trip generation analysis is provided in Table 3.9-3. The proposed Project would generate 3,210 daily trips, including 450 vehicle trips during the a.m. peak hour (301 inbound trips and 149 outbound trips) and 406 vehicle trips during the p.m. peak hour (140 inbound trips and 266 outbound trips).

Table 3.9-3 – Project Vehicle Trip Generation

ITE Code	Land Use	Intensity	Units	Weekday						
				Daily	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Trip Generation Rates [1]										
110	General Light Industrial, Total	-	KSF	4.96		0.70			0.63	
140	Manufacturing, Total	-	Employees	2.47	0.37	74%	26%	0.33	39%	61%
Trip Generation Totals-New Use										
110	General Light Industrial, Total	525.000	KSF	2,604		368			331	
Trip Generation Rates Trucks [2]										
110	General Light Industrial, 2-axle trucks	-	Proportion[1]	0.08	0.08	38%	63%	0.08	67%	33%
110	General Light Industrial, 3-axle trucks	-		0.039	0.039	38%	63%	0.039	67%	33%
110	General Light Industrial, 4+-axle trucks	-		0.095	0.095	38%	63%	0.095	67%	33%
Truck Trips Non-Factored, Removed										
110	General Light Industrial, 2-axle trucks	525.000	KSF	208	29	11	18	26	17	9
110	General Light Industrial, 3-axle trucks	525.000	KSF	102	14	5	9	13	9	4
110	General Light Industrial, 4+-axle trucks	525.000	KSF	247	35	13	22	31	21	10
Truck Trips-Passenger Car Equivalents, Added										
110	General Light Industrial, 2-axle trucks	525.000	KSF	416	58	22	36	52	35	17
110	General Light Industrial, 3-axle trucks	525.000	KSF	255	35	13	22	33	22	11
110	General Light Industrial, 4+-axle trucks	525.000	KSF	741	105	39	66	93	62	31
Trip Generation Rates-Passenger and Small Commercial Vehicles										
110	General Light Industrial, Total	0.000	KSF	See above	See above	88%	12%	See above	13%	87%
Passenger Car and Small Commercial Vehicle Trips Subtotal										
110	General Light Industrial, Total	525.000	KSF	2,047	290	255	35	261	34	227
Gross Project Total		**525.000**		**3,459**	**488**	**329**	**158**	**439**	**153**	**286**
Trip Generation Totals Subtracted for Net Total -Former Use										
140	Manufacturing	101	Employees	249	38	28	10	33	13	20
Net Project Total		**525.000**		**3,210**	**450**	**301**	**149**	**406**	**140**	**266**

Passenger Car Equivalent factors applied were 2.0 for 2 axle trucks, 2.5 for 3-axle trucks and 3.00 for 4+ axle trucks.
1. Total Peak hour and Daily trip generation and passenger/small commercial category entry and exit percentages derived from 10th Edition ITE Trip Generation Manual.
2. Applies truck percentages of total traffic taken from City of Fontana Truck Trip Generation Study, Dated August 2003.

Project Trip Assignment

Project traffic was assigned to the roadway system. Figure 3.9-4 illustrates the assigned Project trips for the analyzed weekday a.m. and p.m. peak hours

Determination of Traffic Impacts

Traffic impacts are identified if a proposed development will result in a significant change in traffic conditions at a study intersection. A significant impact is typically identified if Project-related traffic will cause service levels to deteriorate beyond a threshold limit specified by the overseeing agency. The traffic study guidelines of the City of Irwindale define significant impacts based on pre-project LOS. If an intersection operates at an LOS value of D or lower under existing or future-without-project conditions, an impact occurs where the project causes operations to depreciate to LOS E or F.

When pre-project operations are at LOS E, deterioration of traffic to LOS F, or an increase of the V/C ratio greater than or equal to .02 at signalized intersections, causes a significant impact. When pre-project conditions are at LOS F at a signalized intersection, then the addition of 50 or more project trips causing an increase in the V/C ratio greater than or equal to .02 is considered significant. For un-signalized intersections operating at LOS F in pre-project conditions, the worsening of total control delay to more than four or five seconds per vehicle (for a single- or multi-lane approach), or the addition of 50 or more vehicle trips to an intersection where total control delay already exceeds these values, creates a significant impact.

These thresholds are summarized below.

Pre-project Level of Service	Impact Threshold	
	Signalized Intersections	Un-Signalized Intersections
A through D	LOS E or F	
E	(1). LOS F (2). V/C increase of at least .02	LOS F
F	Addition of more than 50 project trips and an increase in V/C of .02 or greater.	(1). Project trips cause total control delay of minor-street approach to increase to more than 4.0 seconds per vehicle for a single lane approach or 5.0 seconds per vehicle for a multi-lane approach. (2). Addition of more than 50 project trips when total control delay exceeds 4.0 seconds per vehicle (for single-lane approach) or 5.0 seconds per vehicle (for multi-lane approach).

V/C= Volume-to-Capacity Ratio

Source: Irwindale Traffic Study Guidelines, August 2014

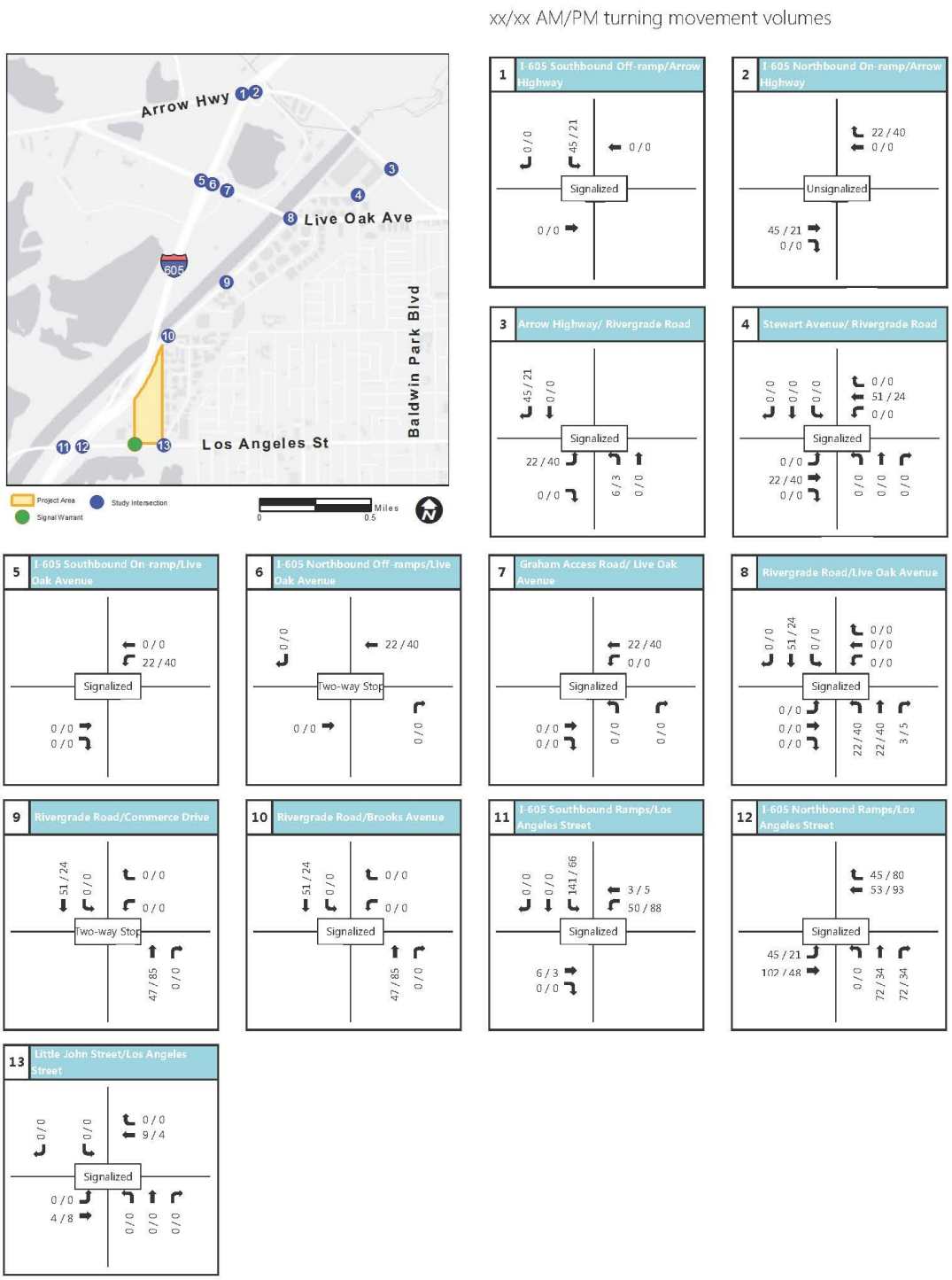

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Figure 3.9-4. Project Trip Assignment – AM/PM Peak Hour

3.9.4.3 Project Impact Analysis

Impact 3.9.1 Conflict with Program, Plan, Ordinance or Policy Addressing the Circulation System

Threshold:	*Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Roadway Circulation System

Project impacts on the circulation system are addressed in this section. The scope and methods used for Project traffic impact analysis conform to current traffic study guidelines and environmental review policies of the City of Irwindale. The impact analysis addresses the following traffic scenarios:

- Existing Conditions
- Existing with Project Conditions
- Future without Project Conditions
- Future with Project Conditions

Existing with Project Conditions

Existing traffic conditions at the study intersections with the addition of Project-generated traffic is derived by adding Project trips to the existing traffic volumes. Table 3.9-4 summarizes the resulting V/C, Vehicle Delay and LOS values at the study intersections for the existing with-Project conditions.

Table 3.9-4 – Study Intersection Existing With-Project Conditions

	Study Intersections	Weekday AM		Weekday PM	
		V/C or Delay	LOS	V/C or Delay	LOS
1	I-605 Southbound Off-ramp/Arrow Highway	1.134	**F**	0.620	B
2	I-605 Northbound On-ramp/Arrow Highway	0.000	-	0.000	-
3	Rivergrade Road/ Arrow Highway	0.730	C	0.639	B
4	Stewart Avenue/ Rivergrade Road	0.350	A	0.369	A
5	I-605 Southbound On-ramp/Live Oak Avenue	0.862	D	1.273	**F**
6	I-605 Northbound Off-ramps/Live Oak Avenue*	1129.3	**F**	606.9	**F**
7	Graham Access Road/ Live Oak Avenue	0.662	B	0.670	B
8	Rivergrade Road/Live Oak Avenue	0.679	B	0.964	**E**
9	Rivergrade Road/Commerce Drive*	27.4	D	30.8	D
10	Rivergrade Road/Brooks Avenue	0.490	A	0.397	A
11	I-605 Southbound Ramps/Los Angeles Street	0.849	D	0.866	D
12	I-605 Northbound Ramps/Los Angeles Street	1.002	**F**	0.980	**E**
13	Little John Street/Los Angeles Street	0.581	A	0.750	C

LOS = Level of Service

V/C= Volume to Capacity Ratio

**Stop-controlled intersections analyzed using the Highway Capacity Manual (HCM) delay-based methodology.*

Eight of the 13 study intersections would continue to operate at LOS D or better during the weekday a.m. and p.m. peak hours. The following study intersections would operate at LOS values of E or F during either peak period:

- I-605 Southbound Off-ramp/Arrow Highway
- I-605 Southbound On-ramp/Live Oak Avenue
- I-605 Northbound Off-ramps/Live Oak Avenue
- Rivergrade Road/Live Oak Avenue
- I-605 Northbound Ramps/Los Angeles Street

The existing with-Project traffic volumes for the weekday a.m. and p.m. peak hours are illustrated in Figure 3.9-5.

Future without Project Conditions

This scenario addresses future traffic conditions in the study area with area/related project trips and background growth added, but without Project traffic (i.e. Future Baseline with Cumulative Projects, but without the Project). The proposed Project is anticipated to be completed in the year 2021 which defines the future analysis year. In order to acknowledge regional population and employment growth outside of the study area, an ambient traffic growth rate was applied to the existing traffic counts. An annual growth rate of two percent was used for this analysis.

In addition to the application of the ambient traffic growth rate, traffic from related/area projects (approved and pending developments) was included as part of the project completion year analysis. A total of 22 projects were identified for inclusion in the traffic impact analysis. These include 13 related projects in the City of Irwindale, five related projects in the City of El Monte, and four related projects in the City of Baldwin Park. Their locations are illustrated on Figure 3.0-1. Table 3.9-5 provides the trip generation estimates for the related/area projects, including related project volumes for the weekday a.m. and p.m. peak hours.

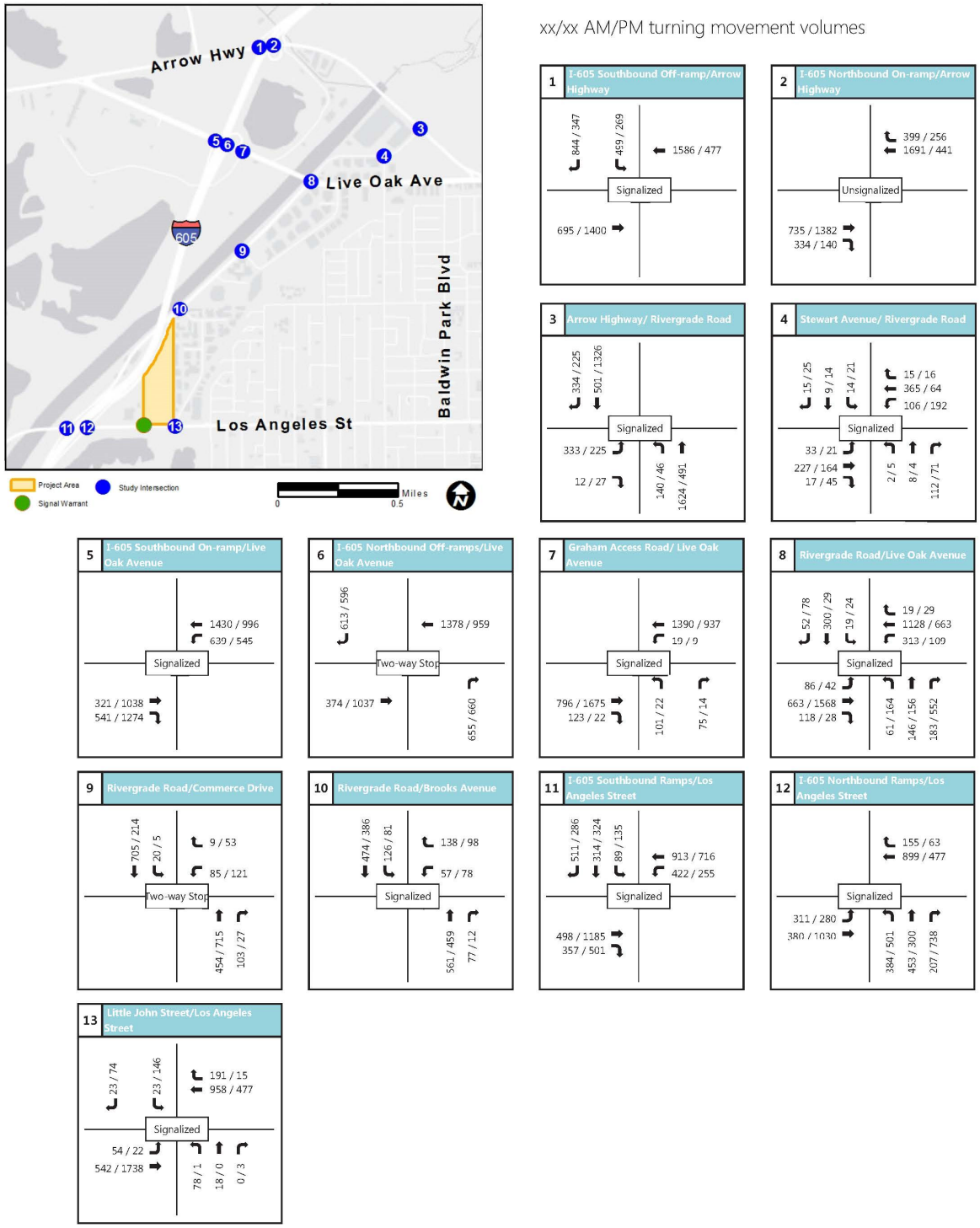

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Figure 3.9-5. Existing with Project – AM/PM Peak Hour Traffic Volumes

Table 3.9-5 – Area Projects Trip Generation Estimate

No.	Project Name	Address	City	Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
								Rate	% In	% Out	Rate	% In	% Out
1	Manning Pit	5175 Vincent Avenue	Irwindale	General Light Industrial	545.735	KSF	2,707	382	336	46	344	45	299
2	The Park @ Live Oak	1200 Arrow Highway	Irwindale	General Light Industrial	1,451.400	KSF	7,199	1,016	894	122	914	119	795
			Irwindale	Shopping Center	98.600	KSF	3,722	93	58	35	376	180	196
3	Panattoni	16203-16233 Arrow Highway	Irwindale	General Light Industrial	130.366	KSF	647	91	80	11	82	11	71
4	Panattoni	242 Live Oak Avenue	Irwindale	General Light Industrial	85.400	KSF	424	60	53	7	54	7	47
5	Ayala Industrial Bldg.	5589 Ayala Avenue	Irwindale	General Light Industrial	80.000	KSF	397	56	49	7	50	7	43
6	Irwindale Med. Clinic	15768 Arrow Highway	Irwindale	Medical/Dental Office	13.300	KSF	463	37	29	8	46	13	33
7	Wendy's Restaurant	15768 Arrow Highway	Irwindale	Fast-Food with Drive-Thru Window	2.300	KSF	1,083	92	47	45	75	39	36
8	Kaiser Med. Office Bldg.	12761 Schabarum Avenue	Irwindale	Medical/Dental Office	90.000	KSF	3,132	250	195	55	311	87	224
9	Reliance II	15990 Foothill Boulevard	Irwindale	General Light Industrial	1,853.000	KSF	9,191	1,297	1,141	156	1,167	152	1,015
			Irwindale	Shopping Center	10.000	KSF	378	9	6	3	38	18	20
10	City of Hope	1500 E. Duarte Road	Irwindale	Medical/Dental Office	108.804	KSF	3,786	302	236	66	376	105	271
11	Tentative Tract Map 82190	2424 & 2428 Mountain Avenue	Irwindale	Single-Family Homes	7.0	Dwelling Units	66	5	1	4	7	4	3
12	Tentative Parcel Map 82188	4826 Baca Avenue	Irwindale	Single-Family Homes	4.0	Dwelling Units	38	3	1	2	4	3	1
13	Tentative Parcel Map 82189	5134 Irwindale Avenue	Irwindale	Single-Family Homes	2.0	Dwelling Units	19	1	0	1	2	1	1
14	22-unit single-family subdivision	4422-4436 Bannister Street	El Monte	Single-Family Homes	22.0	Dwelling Units	208	16	4	12	22	14	8
15	3 new single-family units	5229 Hammill Road	El Monte	Single-Family Homes	3.0	Dwelling Units	28	2	1	1	3	2	1
16	3 2,747 Square foot res units on	11646 Lower Azusa Road	El Monte	Single-Family Homes	3.0	Dwelling Units	28	2	1	1	3	2	1
17	5-unit PUD and one common private	11830 Lambert Avenue	El Monte	Single-Family Homes	5.0	Dwelling Units	47	4	1	3	5	3	2
18	5-detached 2-story res units	11613 Rio Hondo Parkway	El Monte	Single-Family Homes	5.0	Dwelling Units	47	4	1	3	5	3	2
19	23 unit condominiumn	14751 Badillo Street	Baldwin Park	Multifamily Housing (Mid-Rise)	23.0	Dwelling Units	125	8	2	6	10	6	4
20	97,945 sq ft, 10 unit industrial warehouse condominium	5119 Azusa Canyon Rd	Baldwin Park	General Light Industrial	97.945	KSF	486	69	61	8	62	8	54
21	15 single family residential	15138 Nubia Street	Baldwin Park	Single-Family Homes	15.0	Dwelling Units	142	11	3	8	15	9	6
22	5 unit condominium	4232 LA Rica Avenue	Baldwin Park	Multifamily Housing (Low Rise)	5.0	Dwelling Units	37	2	0	2	3	2	1
Total							**34,400**	**3,812**	**3,200**	**612**	**3,974**	**840**	**3,134**

Future without Project Intersection Level of Service

The future without-Project traffic volumes for the weekday a.m. and p.m. peak hours are illustrated on Figure 3.9-6. Table 3.9-6 summarizes the V/C, Vehicle Delay and LOS values at the study intersections under this scenario.

Table 3.9-6 – Study Intersection Future without-Project Conditions

	Study Intersections	Weekday AM		Weekday PM	
		V/C or Delay	LOS	V/C or Delay	LOS
1	I-605 Southbound Off-ramp/Arrow Highway	1.365	**F**	0.764	C
2	I-605 Northbound On-ramp/Arrow Highway	0.000	-	0.000	-
3	Rivergrade Road/ Arrow Highway	0.748	C	0.646	B
4	Stewart Avenue/ Rivergrade Road	0.346	A	0.367	A
5	I-605 Southbound On-ramp/Live Oak Avenue	0.935	**E**	1.614	**F**
6	I-605 Northbound Off-ramps/Live Oak Avenue*	3409.4	**F**	1033.8	**F**
7	Graham Access Road/ Live Oak Avenue	0.685	B	0.700	B
8	Rivergrade Road/Live Oak Avenue	0.700	B	1.003	**F**
9	Rivergrade Road/Commerce Drive*	26.0	D	27.5	D
10	Rivergrade Road/Brooks Avenue	0.490	A	0.380	A
11	I-605 Southbound Ramps/Los Angeles Street	0.827	D	0.850	D
12	I-605 Northbound Ramps/Los Angeles Street	0.965	**E**	0.969	**E**
13	Little John Street/Los Angeles Street	0.586	A	0.752	C

LOS = Level of Service

V/C= Volume to Capacity Ratio

**Stop-controlled intersections analyzed using the Highway Capacity Manual (HCM) delay-based methodology.*

Eight of the 13 study intersections would continue to operate at LOS D or better during the weekday a.m. and p.m. peak hours. The following study intersections would continue to operate at poor LOS values of E or F during either peak period:

- I-605 Southbound Off-ramp/Arrow Highway
- I-605 Southbound On-ramp/Live Oak Avenue
- I-605 Northbound Off-ramps/Live Oak Avenue
- Rivergrade Road/Live Oak Avenue
- I-605 Northbound Ramps/Los Angeles Street

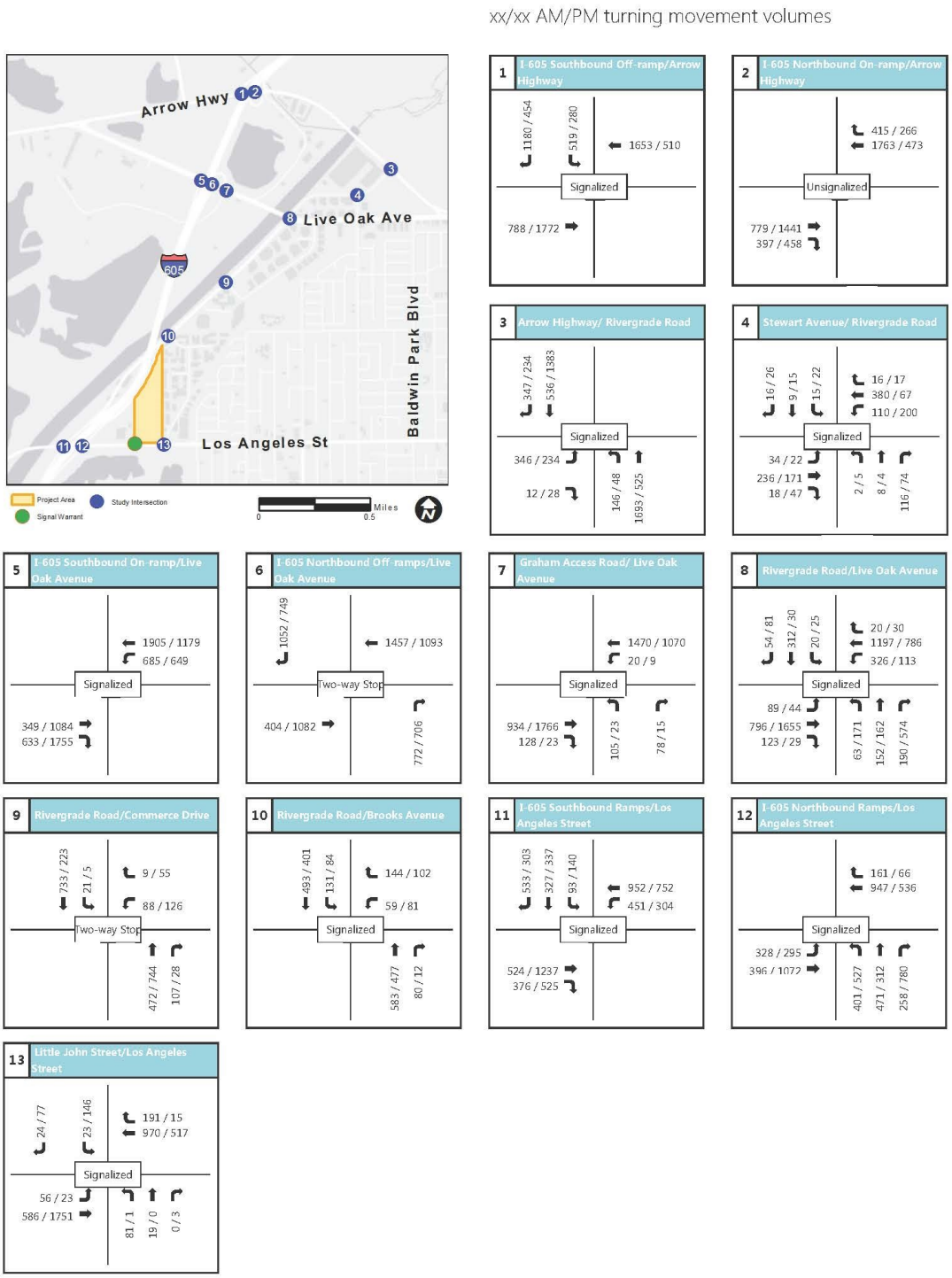

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Figure 3.9-6. Future without Project – AM/PM Peak Hour Traffic Volumes

2019-030 Irwindale Industrial Spec Tilt-Up Project

Future with Project Conditions

Future traffic conditions at the study intersections with the addition of Project-generated traffic were derived by adding Project trips to the future without-Project scenario volumes. Table 3.9-7 summarizes the resulting V/C (or delay) and LOS values at the study intersections for the future with-Project traffic conditions.

Table 3.9-7 – Study Intersection Future with-Project Conditions

	Study Intersections	Weekday AM		Weekday PM	
		V/C or Delay	LOS	V/C or Delay	LOS
1	I-605 Southbound Off-ramp/Arrow Highway	1.365	**F**	0.764	C
2	I-605 Northbound On-ramp/Arrow Highway	0.000	-	0.000	-
3	Rivergrade Road/ Arrow Highway	0.755	C	0.661	B
4	Stewart Avenue/ Rivergrade Road	0.359	A	0.379	A
5	I-605 Southbound On-ramp/Live Oak Avenue	0.949	**E**	1.639	**F**
6	I-605 Northbound Off-ramps/Live Oak Avenue*	3496.9	**F**	1119.2	**F**
7	Graham Access Road/ Live Oak Avenue	0.692	B	0.700	B
8	Rivergrade Road/Live Oak Avenue	0.730	C	1.006	**F**
9	Rivergrade Road/Commerce Drive*	29.9	D	34.6	D
10	Rivergrade Road/Brooks Avenue	0.505	A	0.407	A
11	I-605 Southbound Ramps/Los Angeles Street	0.887	D	0.920	**E**
12	I-605 Northbound Ramps/Los Angeles Street	1.055	**F**	1.032	**F**
13	Little John Street/Los Angeles Street	0.589	A	0.755	C

LOS = Level of Service

V/C= Volume to Capacity Ratio

**Stop-controlled intersections analyzed using the Highway Capacity Manual (HCM) delay-based methodology.*

Seven of the 13 study intersections would continue to operate at LOS D or better during the weekday a.m. and p.m. peak hours. The following six study intersections would operate at LOS E or F during either peak period:

- I-605 Southbound Off-ramp/Arrow Highway
- I-605 Southbound On-ramp/Live Oak Avenue
- I-605 Northbound Off-ramps/Live Oak Avenue
- Rivergrade Road/Live Oak Avenue
- I-605 Southbound Ramps/Los Angeles Street
- I-605 Northbound Ramps/Los Angeles Street

The future with-Project traffic volumes for the weekday a.m. and p.m. peak hours are illustrated on Figure 3.9-7.

Comparison of Tables 3.9-6 and 3.9-7 indicates that based on the applied City of Irwindale significant traffic impact criteria, the proposed Project would create significant traffic impacts at two study intersections under future with-Project conditions.

- 11. I-605 Southbound Ramps/Los Angeles Street
- 12. I-605 Northbound Ramps/Los Angeles Street

Mitigation measures for significant project impacts at these intersections are provided in Section 3.9.5.

Los Angeles Street and Main Project Site Driveway. For post-project conditions, the peak-hour volumes along Los Angeles Street are 1,894 vehicles during the weekday AM peak hour and 2,450 vehicles during the PM peak hour. The Project driveway volume would be 102 vehicles in the AM peak hour and 181 vehicles in the PM peak hour. Based on the analyzed data, peak-hour volumes at this driveway for the future with Project condition would warrant a traffic signal at this location. Mitigation for this impact is provided in Section 3.9-5.

Congestion Management Program and Freeway Impacts

The proposed Project is not anticipated to cause a significant traffic impact at any Metro Congestion Management Program (CMP) arterial monitoring intersections, but would exceed CMP freeway segment thresholds.

Congestion Management Program (CMP) Impacts

The nearest CMP arterial to the project site is Azusa Avenue, which is over four miles east of the Project site. The CMP intersections of Azusa Avenue and Arrow Highway and Azusa Avenue and Workman Avenue are located at a distance of 4.5 miles to the northeast and southeast of the Project site:

- CM ID 14 – Azusa Avenue and Arrow Highway
- CMP ID 159 – Azusa Avenue and Workman Avenue

The Project trip assignment analysis indicated that no more than 11 project trips are expected to travel to/from the Project site along arterial roadways to the east. Therefore, neither of the arterial monitoring stations requires additional CMP impact analysis. The Project would not have a significant CMP impact.

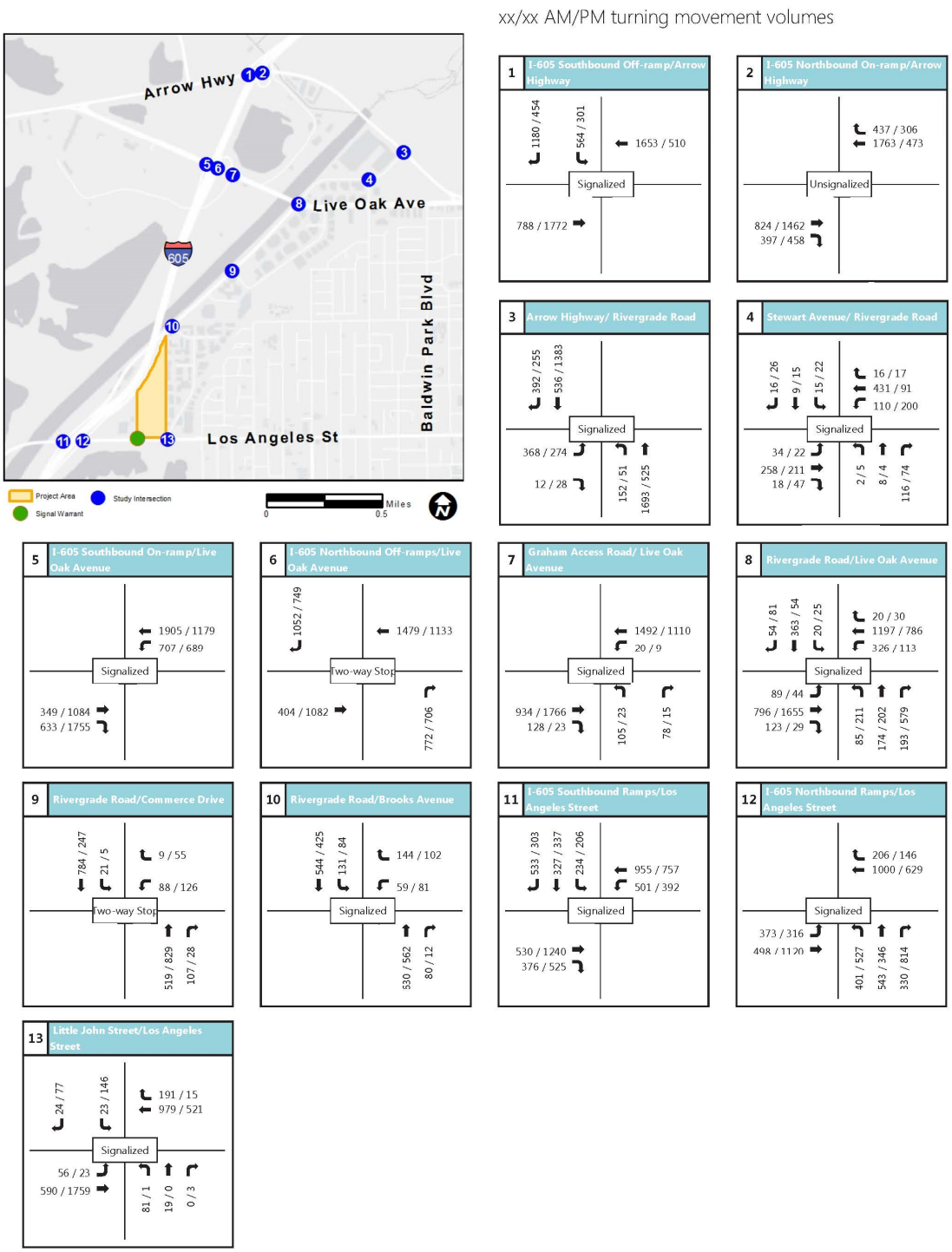

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Figure 3.9-7. Future with Project – AM/PM Peak Hour Traffic Volumes

Freeway Impacts

A Caltrans facility impact analysis was conducted that included freeway mainline segments, diverging/converging points between ramps and the mainline, and queuing at freeway off-ramps. The I-10 (San Bernardino Freeway), I-210 (Foothill Freeway) and I-605 (San Gabriel Valley Freeway) are CMP freeway routes maintained by Caltrans within or near the Project study area. The analyzed access ramp locations are illustrated on Figure 3.9-8. Mainline LOS calculations are summarized in Table 3.9-8.

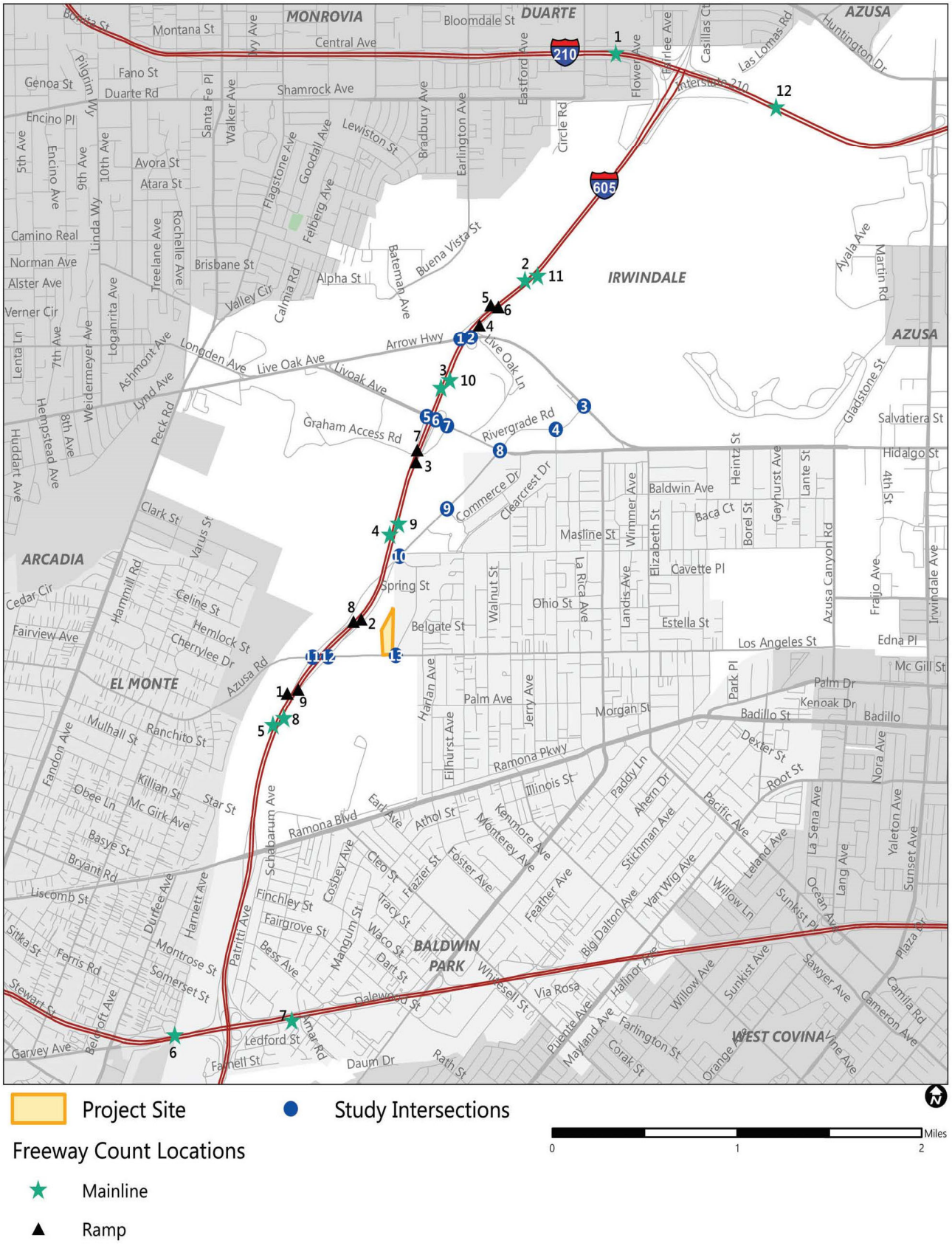
Table 3.9-8 – Mainline LOS Calculations

No	Fwy/Direction	Mainline Segment	Peak Hour	Existing (2017) Condition		Future (2020) No Project		Future (2020) With Project	
				Density	LOS	Density	LOS	Density	LOS
1	I-210	Back of I-605	Weekday AM	35.2	**E**	40.1	**E**	41.0	**E**
			Weekday PM	36.1	**E**	41.2	**E**	41.9	**E**
2	I-605 SB	Ahead of Arrow Highway	Weekday AM	24.2	C	27.4	D	28.4	D
			Weekday PM	23.2	C	25.2	C	25.6	C
3	I-605 SB	Ahead of Live Oak Avenue	Weekday AM	23.5	C	23.5	C	24.1	C
			Weekday PM	21.2	C	22.5	C	22.8	C
4	I-605 SB	Ahead of Lower Azusa Road/Los Angeles Street	Weekday AM	27.7	D	30.4	D	31.5	D
			Weekday PM	26.4	D	31.4	D	32.1	D
5	I-605 SB	Back of Lower Azusa Road/Los Angeles Street (Ahead of Ramona Blvd)	Weekday AM	30.8	D	34.5	D	35.0	D
			Weekday PM	29.1	D	35.7	**E**	36.7	**E**
6	I-10	Back of I-605	Weekday AM	35.2	**E**	40.1	**E**	40.4	**E**
			Weekday PM	33.4	D	37.6	**E**	37.9	**E**
7	I-10	Ahead of I-605	Weekday AM	-	**F**	-	**F**	-	**F**
			Weekday PM	-	**F**	-	**F**	-	**F**
8	I-605 NB	Back of Lower Azusa Road/Los Angeles Street (Ahead of Ramona Blvd)	Weekday AM	31.2	D	38.5	**E**	39.9	**E**
			Weekday PM	29.5	D	33.2	D	33.7	D
9	I-605 NB	Ahead of Lower Azusa Road/Los Angeles Street	Weekday AM	27.5	D	33.0	D	33.6	D
			Weekday PM	26.2	D	29.0	D	29.6	D
10	I-605 NB	Ahead of Live Oak Avenue	Weekday AM	22.3	C	23.8	C	24.2	C
			Weekday PM	21.5	C	22.8	C	23.2	C
11	I-605 NB	Ahead of Arrow Highway	Weekday AM	25.7	C	28.0	D	28.7	D
			Weekday PM	24.6	C	28.1	D	28.9	D
12	I-210	Ahead of I-605	Weekday AM	37.9	**E**	44.3	**E**	45.0	**E**
			Weekday PM	39.0	**E**	-	**F**	-	**F**

LOS = Level of Service

At six freeway mainline segments and three diverging/merging areas, the Project would contribute to potentially significant cumulative impacts per Caltrans standards. The following mainline segments would be operating at LOS E or F in the Project year with addition of proposed Project traffic:

- I-210, back of I-605
- I-605 southbound, back of Lower Azusa Road
- I-10, back of I-605
- I-10, ahead of I-605
- I-605 northbound, back of Lower Azusa Road
- I-210, ahead of I-605



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ENVIRONMENTAL CONSULTANTS

Figure 3.9-8. Study Mainline and Ramp Location

2019-030 Irwindale Industrial Spec Tilt-Up Project

Based on an analysis of ramp queues and existing lengths, operations will be significantly impacted under Future-with-Project conditions at three off-ramps. The Project creates a new queuing impact (compared with Future-without-Project conditions) at the I-605 southbound off-ramp at Lower Azusa Road. The following merging/diverging areas at ramp junctions with mainline segments would be operating at LOS E or F in the Project year, and would experience cumulatively significant impacts with addition of proposed Project traffic:

- I-605 Northbound Off-Ramp at Los Angeles Street
- I-605 Northbound Off-Ramp at Live Oak Avenue
- I-605 Southbound Off-Ramp at Lower Azusa Road

The Project would contribute to **potentially significant cumulative traffic impacts** at six freeway mainline segments and three diverging/merging areas, per Caltrans traffic impact study guidelines and deficient LOS values.

Transit System

The vicinity of the proposed Project site is adequately served by bus transit lines operated by Foothill Transit, with three bus transit lines providing access in the Project vicinity. Access to Montclair Metrolink is available via a bus connection from the El Monte Bus Station. **No conflict with the transit circulation system would occur.**

Bicycle and Pedestrian Facilities

The City of Irwindale continues to support the development and expansion of the region's public and mass transit system (Irwindale 2008). In accordance with those efforts, the Project would provide 13 long-term bicycle parking spaces onsite. The proposed Project would not otherwise conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) in the City of Irwindale. **No impact would occur.**

Overall, the Project would contribute **significant impacts.**

Impact 3.9.2 Conflict or Inconsistency with CEQA Guidelines section 15064.3 subdivision (b)

Threshold:	*Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?*

The City of Irwindale has not adopted a methodology to assess project impacts based on vehicle miles traveled (VMT) consistent with SB 743. Local jurisdictions have an opt-in period lasting until July 1, 2020 to update their respective guidance to comply with SB 743 and to incorporate required VMT thresholds into their CEQA-related transportation impact review for projects. As such, the Project traffic impact analysis is based on the City's current and existing Irwindale Traffic Study Guidelines (2014), which use LOS and delay as a measure for significant transportation impacts under CEQA. The traffic impact analysis consistent with current guidelines is included under preceding Threshold 1. As such, there would be no conflict or inconsistency with CEQA Guidelines section 15064.3 subdivision (b). **No impact would occur.**

Impact 3.9.3 Hazards Due to a Geometric Design Feature or Incompatible Uses

Threshold:	*Would the Project substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*

The Project would not create or increase any hazards associated with geometric design features. Access to the Project site will be provided with two City standard driveways on Los Angeles Street and two new City standard driveways on Rivergrade Road. Driveway designs would provide for safe turning movements and comply with sight distance standards. The Project is proposed in an urban, industrial area and is compatible with surrounding uses. Therefore, **no impact would occur.**

Impact 3.9.4 Emergency Access

Threshold 4:	*Would the Project result in inadequate emergency access?*

Adequate emergency access to the Project site would be available from multiple driveways on Los Angeles Street and Rivergrade Road. **No impact would occur.**

3.9.5 Mitigation Measures

The Project will participate in the City's Development Impact Fee (DIF) program for Citywide infrastructure improvements covered under the DIF program.

Project Fair Share

City of Irwindale traffic study guidelines require a fair-share volume analysis at significantly impacted study locations. The identified Project significant impacts occur at the two intersections of Los Angeles Street with the I-605 freeway ramps. The fair-share percentages for these locations were based on the following formula within the guidelines: project volumes/existing with-project volumes

The volumes used for this calculation are peak-hour, and both the AM and PM peak conditions were analyzed. The fair-share percentages for the two intersections for both peak hours are as follows:

I-605 Southbound Ramps/Los Angeles Street

- AM peak hour: 200 project trips / 3,304 existing with-project trips = 6.1 percent
- PM peak hour: 162 project trips / 3,564 existing with-project trips = 4.6 percent

I-605 Northbound Ramps/Los Angeles Street

- AM peak hour: 389 project trips / 3,178 existing with-project trips = 12.2 percent
- PM peak hour: 310 project trips / 3,699 existing with-project trips = 8.4 percent

Mainline Freeway Segments

The Project share of volumes on impacted mainline freeway segments would range from 1 percent to 6.8 percent. These percentages are presented in Table 3.9-9 as informational items, as Caltrans does not have defined impact standards.

Table 3.9-9 – Fair-Share Calculations on Impacted Mainline Freeway Segments

Segment No	Segment Name	Period	1. Project Trips	2. Project Buildout Traffic *	3. Existing Traffic	4. Area Project Traffic	5. Post-Project Traffic minus Existing and Area Project Traffic	6. Fair-Share Percent= 1./5.
1	I-210, Back of I-605	AM	112	11830	9016	122	2692	4.2%
		PM	85	11972	9145	126	2701	3.1%
5	I-605 SB, Back of Lower Azusa Road/Los Angeles Street	PM	128	8680	6616	43	2021	6.3%
6	I-10, Back of I-605	AM	43	12259	9404	121	2734	1.6%
		PM	38	11838	9080	122	2636	1.4%
7	I-10, Ahead of I-605	AM	29	11576	8884	121	2571	1.1%
		PM	26	11180	8578	122	2480	1.0%
8	I-605 NB, Back of Lower Azusa Road/Los Angeles Street	AM	144	9554	6889	550	2115	6.8%
12	I-210, Ahead of I-605	AM	74	12441	9474	182	2785	2.7%
		PM	56	12604	9609	190	2805	2.0%

**Obtained by factoring up existing traffic volumes to year 2040 levels by a growth rate defined in the Los Angeles County Congestion Management Plan, then adding project and area project trips.*

3.9.5.1 Project-Level Mitigation

MM TRANS-1: A Construction Traffic Management Plan and Truck Haul Route Program shall be prepared for City Traffic Engineer approval to address how the Project will minimize congestion on streets and freeways during the construction period. The Plan/Program will be made available for review by Caltrans.

Level of Significance After Mitigation

Less than significant construction traffic impact.

MM TRANS-2: The Project shall provide a T-Intersection traffic signal at the main Project driveway on Los Angeles Street. The City Engineer shall make the final determination as to need and timing of the traffic signal based on traffic signal warrants.

Level of Significance After Mitigation

Implementation of the traffic signal when warranted would reduce the intersection impact to a less than significant level.

MM TRANS-3: Project access and internal circulation shall be designed to assure that all tenants of the Project have access to at least one Project driveway at Los Angeles Street and Rivergrade Road for ingress and egress.

Level of Significance After Mitigation

Less than significant impact.

MM TRANS-4: Prior to the issuance of building permits, the project applicant shall pay the Project's fair share amount for improvements at two study intersections under future with-Project conditions:

- I-605 Southbound Ramps/Los Angeles Street
- I-605 Northbound Ramps/Los Angeles Street

Improvements will include the addition of lanes to the freeway off-ramps at both locations and will require widening of the off-ramp facilities. At the southbound off-ramp location, the recommended mitigation measure is an added left-turn lane at the ramp approach. At the northbound off-ramp location, the recommended mitigation measure is an added right-turn lane at the ramp approach.

Level of Significance After Mitigation

Implementation of the mitigation measure would fully mitigate the identified impacts at both study intersections, under both existing plus-Project and future with-Project conditions. Caltrans would be responsible for implementation and timing of improvements. In the event the specified improvements are not constructed when needed, a significant impact would occur.

3.9.5.2 Cumulative-Level Mitigation

Mainline Freeway Segments

The Project share of volumes on impacted mainline freeway segments would range from 1 percent to 6.8 percent. These percentages are presented in Table 3.9-9 as informational items, as Caltrans does not have defined impact standards.

The Project would contribute to significant cumulative impacts at six freeway mainline segments and three diverging/merging areas, per Caltrans traffic impact study guidelines and deficient LOS values. It is not within the jurisdictional authority of purview of the Lead Agency or Applicant to adopt, implement, or enforce mitigation measures requiring the construction of improvements by Caltrans, or upon facilities within Caltrans jurisdiction. As such, there are no feasible mitigation measures that will reduce cumulative mainline freeway impacts below significance thresholds. Traditional funding mechanisms used to improve mainline freeway impacts include Los Angeles County's Measure M revenue for transportation, state and federal gas tax, and formula distributions from vehicle registration fees. Future employees/patrons of the Project contribute indirectly to freeway improvements through these sources. However, the Project's contribution to cumulative-level impacts associated with mainline freeway impacts at six is considered significant and unavoidable.

Level of Significance After Mitigation

Cumulative impacts are significant and unavoidable.

3.10 Tribal Cultural Resources

This section considers and evaluates the potential impacts of the proposed Project on cultural resources of the California Native American tribes. Tribal cultural resources include landscapes, sacred places, or objects with cultural value to a tribe. This section describes the affected environment and regulatory setting for Tribal Cultural Resources in the Project area. The following analysis of the potential environmental impacts related to Tribal Cultural Resources are derived primarily from the following sources:

- California Historical Resources Information System Records search on March 20, 2019;
- Historic Resources Inventory Report prepared by Dudek (May 2019); and
- AB 52 tribal coordination between the City of Irwindale and the Gabrielino Band of Mission Indians–Kizh Nation on March 14, 2019.

3.10.1 Environmental Setting

Ethnography

Based on evidence presented through past archaeological investigations, the Gabrielino appear to have arrived in the Los Angeles Basin around 500 B.C (Dudek 2019 – Appendix D). Surrounding native groups included the Chumash and Tataviam to the northwest, the Serrano and Cahuilla to the northeast, and the Juaneño and Luiseño to the southeast. The names by which Native Americans identified themselves have, for the most part, been lost and replaced by those derived by the Spanish people administering the local Missions.

These names were not necessarily representative of a specific ethnic or tribal group, and traditional tribal names are unknown in the post- Contact period. The name "Gabrielino" was first established by the Spanish from the San Gabriel Mission and included people from the established Gabrielino area as well as other social groups (Dudek 2019 – Appendix D). Many modern Native Americans commonly referred to as Gabrielino identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and refer to themselves as the Tongva (King 1994). This term is used here in reference to the pre-Contact inhabitants of the Los Angeles Basin and their descendants.

The Tongva established large, permanent villages along rivers and streams, and lived in sheltered areas along the coast. Tongva lands included the greater Los Angeles Basin and three Channel Islands, San Clemente, San Nicolas, and Santa Catalina and stretched from the foothills of the San Gabriel Mountains to the Pacific Ocean. Tribal population has been estimated to be at least 5,000 but recent ethnohistoric work suggests a much larger population, approaching 10,000 (Dudek 2019 – Appendix D). Archaeological sites composed of villages with various sized structures have been identified through the Los Angeles Basin.

Known Cultural Resources in the Area

The South-Central Coastal Information Center (SCCIC) records indicate that seven cultural resources have been recorded within 1 mile of the Project site; none of which overlap or are located adjacent to the

Project site. The resources include a historic refuse deposit, one is a historic road, and five are historic structure.

According to the Cultural Resources Inventory, the Project site appears not eligible under all National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and City of Irwindale designation criteria. The Project site only retains integrity of location, design, workmanship, and feeling and does not maintain the requisite integrity to support listing in the NRHP, CRHR, or as a City of Los Angeles HCM. Additionally, no archaeological resources were identified within the Project site as a result of the CHRIS records search.

Summary of Tribal Consultation

AB 52 consultation requirements went into effect on July 1, 2015 for all projects that have not already published a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) or published a Notice of Preparation of an EIR (Section 11 [c]). On March 13, 2019, the City of Irwindale sent proposed Project notification letters to the following California Native American tribes, which had previously submitted AB 52 general consultation request letters pursuant to AB 52 (21080.3.1(d) of the Public Resources Code): Gabrielino-Tongva Tribe, Gabrielino/Tongva Nation, Gabrielino Tongva Nation, Gabrielino/Tongva San Gabriel Band of Mission Indians, Gabrielino Tongva Indians of California Tribal Council, and Gabrielino Band of Mission Indians-Kizh Nation. Each recipient was provided a brief description of the proposed Project and its location, the lead agency contact information, and a notification that the tribe has 30 days to request consultation.

As a result of the notification letters, the City received a single request for consultation from the Gabrielino Band of Mission Indians–Kizh Nation. A tribal consultation conference with the Kizh Nation was held on March 14, 2019. Although no known tribal cultural resources at the Project site were identified, tribal representatives indicated the proposed Project site lies within their ancestral tribal territory. The project site's proximity to the San Gabriel River and associated traditional Native American trade routes makes it sensitive for tribal cultural resources and the potential for discovery of buried cultural resources in native soils at the site.

3.10.2 Regulatory Setting

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) requires that the federal government list significant historic resources on the NRHP, which is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

Structures, sites, buildings, districts, and objects over 50 years of age can be listed in the NRHP as significant historic resources. However, properties under 50 years of age that are of exceptional

importance or are contributors to a historic district can also be included in the NRHP.[5] The criteria for listing in the NRHP include resources that:

a) Are associated with events that have made a significant contribution to the broad patterns of history;

b) Are associated with the lives of persons significant in our past;

c) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d) Have yielded or may likely yield information important in prehistory or history.

State

Assembly Bill 52

Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to mandate consultation with California Native American tribes during the CEQA process to determine whether or not the proposed Project may have a significant impact on a Tribal Cultural Resource, and that this consideration be made separately from cultural and paleontological resources.

Section 21073 of the Public Resources Code defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission (NAHC)for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the Public Resource Code defines Tribal Cultural Resources for the purpose of CEQA as:

1. Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
    b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
2. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this

[5] A [historic] district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development (National Park Service 2015).

paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of an Historical Resource under CEQA (see Section 3.2 Cultural Resources), a TCR may also require additional consideration as an Historical Resource. Tribal Cultural Resources may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies carry out consultation with tribes at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures.

California Health and Safety Code

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (Health and Safety Code Section 7050.5b). PRC Section 5097.98 outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Health and Safety Code Section 7050.5c). The NAHC would notify the most likely descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Local

County of Los Angeles General Plan

The County's General Plan Conservation and Natural Resources Element has several policies and action items related to cultural resources. While many of these policies and action items required the County to take certain actions, they are not related to development of a particular project. Those policies that pertain to the proposed Project are listed below:

Historic, Cultural, and Paleontological Resource Protection

Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.

Policy C/NR 14.2: Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.

Policy C/NR 14.4: Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).

Policy C/NR 14.5: Promote public awareness of historic, cultural, and paleontological resources.

Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

City of Irwindale General Plan

The City of Irwindale General Plan Resources Management Element provides a framework for preservation of cultural resources in the City. The following are those policies that would pertain to the proposed Project:

Cultural Awareness. A cornerstone of this program will be the identification of a site/location that may be used for the storage and collection of artifacts, photographs, books, and displays. The City will cooperate with local organizations (such as the local historical society, Chamber of Commerce, etc.) and individuals to acquire resource materials concerning local history and culture. These materials include books, photographs, artifacts, furniture, etc., that may be displayed in a future City museum. The City will continue to support cultural resource conservation and preservation efforts in Irwindale.

Cultural Resource Management. Should archaeological or paleontological resources be encountered during excavation and grading activities, all work would cease until appropriate salvage measures are established. Appendix K of the California Environmental Quality Act (CEQA) Guidelines shall be followed for excavation monitoring and salvage work that may be necessary. Salvage and preservation efforts will be undertaken pursuant to Appendix K requirements outlined in CEQA.

Environmental Review. The City shall continue to evaluate the environmental impacts of new development and identify applicable mitigation measures prior to development approval, as required by the California Environmental Quality Act (CEQA). Environmental review shall be provided for those projects that will have a potential to adversely affect the environment. Issue areas that will be addressed in the environmental analysis related to resource issues include: air quality, water and hydrology, plant life, animal life, natural resources, energy, aesthetics, recreation, and cultural resources. In compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of any mitigation measures.

3.10.3 Impact Analysis

3.10.3.1 Thresholds of Significance

Following Appendix G of the CEQA Guidelines, tribal cultural resource impacts are considered to be significant if the project would result in any of the following:

1) 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. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
   b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

3.10.4 Impacts to Tribal Cultural Resources

Threshold:	*Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:* • *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or* • *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe?*

According to the project-specific Historic Resources Inventory Report (Dudek 2019 – Appendix D), the proposed Project site is neither listed or eligible for listing in the California Register of Historical Resources, nor in a local register of historical resources pursuant to PRC 5020.1(k). **No impact would occur.**

The proposed Project would not result in significant impacts to known TCRs. However, the concluded AB 52 consultation with the Gabriel Band of Mission Indians—Kizh Nation has indicated the project site is located within the ancestral territory of the Gabrieleno. The project site's proximity to the San Gabriel River and associated traditional Native American trade routes makes it sensitive for tribal cultural resources and the potential for discovery of buried cultural resources in native soils at the site. Thus,

significant impacts may occur from the discovery of unknown TCRs during ground disturbing activities from Project construction. Impacts to unknown TCRs would be less than significant with the implementation of mitigation measures **CUL-1** and **CUL-2** that include an opportunity for tribal participation in monitoring of subsurface excavations. These mitigation measures are described in Section 3.2 Cultural Resources.

For the reasons described above, impacts would be **less than significant with mitigation.**

3.10.5 Cumulative Impacts

Threshold:	*Would implementation of the proposed project, along with any foreseeable development in the project vicinity, could result in cumulative impacts to tribal cultural resources?*

As mitigated, the direct impacts associated with the proposed Project would be reduced to a less than significant level. While it is possible that grading and development could result in the discovery of cultural resources, mitigation measures and state and federal laws already in place would set in motion actions designed to mitigate these potential impacts. The Project is adjacent to existing development that has disturbed the soil and likely already affected any cultural resources. As a result of surrounding development, mitigation proposed in this section, and existing federal and state laws, this impact is considered less than cumulatively considerable.

3.10.6 Mitigation Measures

CUL-1: **Archaeological Monitoring and Accidental Discovery.** Prior to issuance of grading permits, and in adherence to the recommendations of the cultural resources records search, the Applicant shall retain a qualified archaeological monitor and, if interested pending conclusion of the tribal resources consultation, a Native American monitor. Monitoring by a qualified archaeologist should be conducted under the supervision of a Los Angeles County Certified archaeologist and, if interested, by a Native American monitor from one of the Gabrieleno groups recognized by the Native American Heritage Commission (NAHC). The monitor shall be present on the Project site during ground-disturbing activities to monitor rough and finish grading, excavation, and other ground-disturbing activities in any native soils (i.e. non-previously engineered soils). Because no cultural resources were identified on the Project site, archaeological monitors are not required to be present on a full-time basis but shall spot check ground-disturbing activities to ensure that no cultural resources are impacted during construction activities. The precise timing of monitoring activities shall be consistent with the provisions established in the Monitoring Plan.

The Monitoring Plan shall be prepared by a qualified archaeologist and shall be reviewed by the Community Development Manager/City Planner, or designee. The Monitoring Plan should include at a minimum: (1) a list of personnel involved in the monitoring activities; (2) a description of how the monitoring shall occur; (3) a description of the frequency of monitoring (e.g., full-time, part-time, spot checking); (4) a description of what resources may be encountered; (5) a description of circumstances that would result in the halting of work at the project site (e.g., what is considered a "significant"

archaeological site); (6) a description of procedures for halting work on site and notification procedures; and (7) a description of monitoring reporting procedures. If any significant historical resources, archaeological resources, tribal cultural resources, or human remains are found during monitoring, work shall be stopped within the immediate vicinity (precise area to be determined by the archaeologist in the field) of the resource until such time as the resource can be evaluated by an archaeologist. If the deposits are culturally significant, adverse effects on the deposits must be avoided, or such effects must be mitigated. Mitigation can include, but is not necessarily limited to: leaving the deposits in place, excavation of the deposit in accordance with a data recovery plan (see CCR Title 4(3) Section 5126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; and an interpretive display of recovered archaeological materials at a local school, museum, or library.

Upon completion of all monitoring/mitigation activities, the consulting archaeologist shall submit a monitoring report to the Community Development Manager/City Planner, or designee, and to the SCCIC summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been met.

CUL-2: **Human Remains.** If human remains of any kind are found during construction, the requirements of CEQA Guidelines Section 15064.5(e) and Assembly Bill 2641 shall be followed. According to these requirements, all construction activities must cease immediately, and the Los Angeles County Coroner and a qualified archaeologist must be notified. The Coroner will examine the remains and determine the next appropriate action based on his or her findings. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the MLD to be consulted regarding treatment and/or reburial of the remains. If an MLD cannot be identified, or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to them, the Native American human remains and associated grave goods shall be buried with appropriate dignity on the property in a location not subject to further subsurface disturbance.

3.10.7 Level of Significance After Mitigation

Impacts to unknown TCRs would be less than significant with the implementation of mitigation measures **CUL-1** and **CUL-2** that include an opportunity for tribal participation in monitoring of subsurface excavations.

3.11 Utilities And Service Systems

This section describes the environmental setting for utilities and service systems, including the existing site conditions, regulatory setting, the impacts on utilities and service systems that would result from the Proposed Project, and any mitigation measures that would be needed to reduce significant impacts.

3.11.1 Environmental Setting

The Project site previously supported an active pre-cast concrete manufacturing facility that used existing utility connections at the site. The proposed Project would include new connections to existing gas, water, and sewer lines off of Los Angeles Street. Additionally, it would involve the addition of fire hydrants, storm drains, and drainage basins.

The Infrastructure Element in the City General Plan (City 2008) details the City's utilities and service systems, including water, wastewater, and solid waste. According to the General Plan, the City has adequate domestic water service, public wastewater lines, roads, schools, trash, public facilities, parks and recreation, fire and police services for the level of development projected by the City. Language from the General Plan is included in the sections below.

Water Service

Several different water purveyors serve the City. The City of Azusa Water Department provides basic service to the largest portion of Irwindale from its most northeasterly boundaries to Ornelas Street, including all of the Santa Fe Dam area located to the east of the San Gabriel River Freeway. California-American Water Company, located in the City of San Marino, serves the area north of the Buena Vista Channel to the Duarte boundary with potable water for domestic, landscaping, and fire protection purposes. Finally, the San Gabriel Valley Water Company, located in the City of El Monte, serves approximately 50 customers in the Vulcan's Durbin Pit area as well as the area generally located between Lower Azusa Road and Ramona Boulevard. The Southern California Water Company serves a portion of the westernmost part of the City north of Live Oak Avenue.

The proposed Project site is served by the Valley County Water District (VCWD), which procures its water supplies primarily from the Main Basin and imported water. VCDW serves the southeasterly portion of the City as well as an area generally bound by Arrow Highway, Live Oak Avenue, and the I-605 Freeway.

Wastewater

The Los Angeles County Sanitation Districts (Districts) would be responsible for the treatment of wastewater generated by the project. The proposed Project is located within the jurisdictional boundaries of District 15, which is one of the seventeen districts that form the Join Outfall System. The Joint Outfall System is a regional, integrated sewerage system covers approximately 660 square miles, from the foothills of the San Gabriel Mountains in the north to San Pedro Bay in the south, and from the Los Angeles city limits on the west to the Los Angeles County border on the east. This system provides sewage treatment, reuse and disposal for residential, commercial, and industrial users. The system includes the main Joint Water Pollution Control Plant in Carson, and six satellite water reclamation plants

(WRPs). The six WRPs include La Cañada WRP, Long Beach WRP, Los Coyotes WRP, Pomona WRP, San Jose Creek WRP, and Whittier Narrows WRP.

The District's trunk sewer lines extend throughout the City, with no under-served areas. Wastewater flowing from the Project site would discharge to a local sewer line, which is not maintained by the District, for conveyance to the District's Baldwin Park Trunk Sewer located on Harlan Avenue at Ramona Parkway. The wastewater will be treated at the San Jose Creek Water Reclamation Plant located adjacent to the City of Industry, which has a capacity of 100 mgd and currently processes an average of 58.5 mgd. All biosolids and wastewater flows that exceed the capacity of the San Jose Creek WRP would be diverted and treated at the Joint Water Pollution Control Plant located in the City of Carson.

The Los Angeles County Sewer Maintenance District, located in the City of Alhambra, provides maintenance for the City's six miles of sewers on a contract basis, including emergency services on a 24-hour basis.

Solid Waste

The City has an exclusive franchise agreement with Athens Services to provide mixed waste collection services and other available programs to its residents and business community. Athens Services currently transports all of Irwindale's commercial waste to a Materials Recovery Facility, where recyclable materials are sorted and then diverted from local landfills. Several quarry sites throughout the City are designated for landfill use.

Electricity

Southern California Edison provides electricity to over 15 million people in 50,000 square miles of service area, encompassing 15 counties in central, coastal, and southern California. SCE currently provides electricity to the citizens, businesses, and industries within the City of Irwindale. SCE would extend electric service to the Project in accordance with rules and policies for extension of service on file with the California Public Utilities Commission.

Natural Gas

The Southern California Gas Company provides natural gas services to the area and would extend service to the Project site at the time contractual arrangements are made in accordance with SoCalGas policies and extension rules on file with the California Public Utilities Commission.

3.11.2 Regulatory Setting

Federal

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was passed in 1974 in order to protect public health by regulating the nation's public drinking water supply. The SDWA gives the Environmental Protection Agency (EPA) the authority to create national health-based standards for drinking water in order to protect against contamination. The SWDA focuses on providing safe drinking water from the tap, protecting the source water, and improving water systems. This act can be applied to every public water system in the nation. The EPA creates national primary drinking water regulations, which set an enforceable maximum contaminant level for contaminants in drinking water. The EPA also sets forth regulations on how to remove contaminates from drinking water.

State

Urban Water Management Planning Act of 1983

The Urban Water Management Planning Act of 1983 requires California's urban water suppliers that either provide over 3,000 acre feet (af) of water annually or serve more than 3,000 connections to submit an UWMP to the Department of Water Resources (DWR) every five years. In these plans, suppliers assess the reliability of their water sources over a 20-year planning horizon considering normal, dry, and multiple dry years. The purpose of these plans is to ensure that water suppliers have adequate water supplies for existing and future demands (CWC 2013).

California Integrated Waste Management Act
The California Integrated Waste Management Act of 1989 (AB 939) requires all counties to prepare a CIWMP. The plan must include the following elements: source reduction, recycling and composting, and environmentally safe transformation and land disposal (CalRecycle 1997).

California Solid Waste Reuse and Recycling Access Act of 1991
The California Solid Waste Reuse and Recycling Access Act of 1991 set the California Department of Resources Recycling and Recovery, also known as CalRecycle, in charge of drafting a model ordinance relating to adequate areas for collecting and loading recyclable materials in development projects. Local agencies, such as the County of Los Angeles, are then required to adopt the model, or an ordinance of their own.

Sustainable Groundwater Management Act

In September 2014, Governor Edmund G. Brown Jr. signed a three-bill package known as the Sustainable Groundwater Management Act (SGMA). The SGMA:

- Provides for sustainable management of groundwater basins
- Enhances local management of groundwater consistent with rights to use or store groundwater
- Establishes minimum standards for effective, continuous management of groundwater

- Provides local groundwater agencies with the authority, technical, and financial assistance needed to maintain groundwater supplies
- Avoids or minimizes impacts for land subsidence
- Improves data collection and understanding of groundwater resources and management
- Increases groundwater storage and removes impediments to recharge
- Empowers local agencies to manage groundwater basins, while minimizing state intervention

Local

Los Angeles County Sanitation Districts

The Sanitation Districts adopted a Wastewater Ordinance effective April 1, 1972, as amended on July 1, 1980, July 1, 1983, November 1, 1989, and July 1, 1998, to protect and finance the operation of the Sanitation Districts' wastewater conveyance, treatment, and disposal facilities. Individual Sanitation Districts also adopted Connection Fee Ordinances in 1981 (which were amended in 1984, 1990, 1992, and 1997). Companies that discharge industrial wastewater to the sewerage system are governed by both the Wastewater Ordinance and the Connection Fee Ordinance for the District in which the discharge is located. These legal mechanisms establish the Sanitation Districts' Industrial Wastewater Discharge Permit, Connection Fee, and Surcharge Programs. The Industrial Wastewater Discharge Permit Program allows for the regulation of industrial wastewater dischargers to protect the public health, environment, and the public sewerage system. The Surcharge Program requires all industrial companies discharging to the Sanitation Districts' sewerage system to pay their fair share of the wastewater treatment and disposal costs. The Connection Fee Program requires all new users of the Sanitation Districts' sewerage system, as well as existing users that significantly increase the quantity or strength of their wastewater discharge, to pay their fair share of the costs for providing additional conveyance, treatment, and disposal facilities (Districts 2019a).

City of Irwindale General Plan

The City of Irwindale General Plan has an infrastructure element that discusses certain utilities, including sewer (City of Irwindale 2008). Aside from a general commitment to maintain the highest service standards, the General Plan does not contain any specific policies that directly apply to the proposed Project. Relevant General Plan policies are as follows:

Issue Area – Maintenance of Service Standards. City of Irwindale will continue to maintain the highest levels of public service to respond to the existing and future demand for such services.

> *Infrastructure Element Policy 1*. The City will continue to support the efforts of the City of Irwindale Public Works Department in maintaining the highest service standards feasible.

Infrastructure Element Policy 2. The City will continue to cooperate with those utility providers in the City to ensure that sufficient infrastructure capacity is available to meet current and future service demands (City of Irwindale 2008).

3.11.3 Impact Analysis

According to Appendix G of the CEQA Guidelines, a project would have significant effect on the utilities environment, if the project would result in any of the following:

1. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm drainage electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

2. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

3. 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?

4. Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

5. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

3.11.3.1 Project Impacts Analysis

Impact 3.11.1 New or Expanded Facilities

Threshold:	*Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?*

The proposed Project would install connections to existing utility lines, including gas, water, and sewer off Los Angeles Street (Figure 3.11-1 Conceptual Utility Plan). Small encroachments into adjacent public rights of way of developed/paved streets to connect to existing utilities will be required to serve the Project. Trenching for new onsite utility lines would be required. Physical disturbance for the installation of these new utility lines would be limited and largely indistinguishable from overall grading for development on the proposed Project site.

Natural Gas and Electric Power

According to the City's General Plan, the Southern California Gas Company maintains lines ranging in size from 2-inch medium pressure lines to 8-inch high pressure lines to serve Irwindale customers. There are

no under-served areas, and the company does not foresee any constraints to substantial future development within the City. Additionally, SCE provides basic electrical service for all residential and non-residential customers within the City. Power is available to most service areas, with underground lines situated along several of the major streets. There are no underserved areas, and there are no constraints to additional electric service needed for future development (City of Irwindale 2008).

As discussed in Chapter 3.3 Energy, the increase in electricity usage as a result of the Project would constitute an approximate 0.012 percent increase in the typical annual electricity consumption attributable to non-residential uses in Los Angeles County. Project increases in natural gas usage across Los Angeles County would also be negligible at 0.005 percent. The Project would adhere to all federal, State, and local requirements for energy efficiency, including the Title 24 standards. The Project would be required to comply with Title 24 building energy efficiency standards, which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. As such, impacts to gas and electric utilities would be **less than significant**.

Water

According to the VCWD 2013 Water Master Plan, the Project would consume approximately 68.73 acre feet per year (AFY) (VCWD 2014). VCWD indicates that it is confident that it can successfully obtain a combination of prescriptive rights, groundwater leases and purchases, and replenishment water to achieve a production of water up to 9,565.6 AFY in any given year out to year 2035. Build out of current land uses and population growth were considered to project this future water demand (VCWD 2016). Water supplies are further discussed in Impact 3.11.2 below. The impact on water facilities would be **less than significant**.

Storm Drainage

As discussed in Section 3.6 Hydrology and Water Quality, the Project would increase impervious surfaces throughout the site and would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the project site. The site-specific LID report indicates that the proposed Project condition 50-year peak flow rates from the proposed Project site would be higher than existing condition rates. Therefore, detention in the onsite truck yards would reduce proposed condition discharge to below existing condition discharge. The proposed onsite storm drains would be sized during the project site's final design phase to restrict outflow to the desirable discharge rates. Additionally, an underground CMP detention system would be utilized to treat the SWQDv and route stormwater greater than the 85th percentile into the mainline. As the developed peak flows for the Project site would be limited and metered through the use of onsite detention basins, there would be adequate capacity in the existing Los Angeles Street storm drain system for the proposed flows. Thus, the onsite and offsite facilities would be adequate to collect and convey stormwater runoff from the Project site and no additional direct connections would be required. Impacts associated with the existing and planned storm drain systems would be **less than significant**.

Wastewater Facilities

Wastewater generated at the proposed Project site would discharge to the local sewer line for conveyance to the District's Baldwin Park Trunk Sewer, located at Harlan Avenue in Ramona Parkway. The District's 18-inch diameter trunk sewer has a capacity of 4.3 million gallons per day (mgd) and conveyed a peak flow of 3.2 mgd when last measured in 2013 (Districts 2019b). The wastewater would be treated at the San Jose Creek WRP located adjacent to the City of Industry, which has a capacity of 100 mgd and currently processes an average of 58.5 mgd. All biosolids and wastewater flows that exceed the capacity of the San Jose Creek WRP would be diverted and treated at the Joint Water Pollution Control Plant located in the City of Carson. According to a comment letter received from the District (Appendix A), the expected increase in average wastewater flow from the Project is 99,242 gallons per day, after the existing structures have been demolished (Districts 2019b). This would represent only a nominal increase compared with the District's current demands and would not result in either plant exceeding sewage treatment capacities. Impacts would be **less than significant**.

Under California Health and Safety Code, the applicant would be required to pay connection for both water and wastewater service connections (Districts 2019b). These capital facilities fees must be paid before the Project is permitted to discharge into the District's Sewerage System. Fees are used to fund improvements needed to continue serving the applicable service area, construct incremental service expansion to accommodate the Project, and comply with State Water Resources Control Board treatment requirements. Impacts with respect to construction of new (or expanded) wastewater treatment facilities would, therefore, be **less than significant**.

Overall, the Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm drainage, electric power, natural gas, or telecommunications facilities. Impacts to existing utilities would be **less than significant.**

Impact 3.11.2 Water Supplies

Threshold:	*Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

The proposed Project site is served by the VCWD, which procures its water supplies primarily from the Main Basin and imported water. According to the District's 2015 UWMP (2016), the minimum water supplies available at the end of an average water year, a single dry year, and multiple dry years would be at least equal if not greater than the District's water demand. VCWD's water demand estimates are summarized in the tables below. These estimates indicate the District's water supplies are projected to meet water demand through the forecast horizon year.

Table 3.11-1. Normal Year Water Supply and Demand Comparison (AF)

	2020	2025	2030	2035	2040
Supply Totals	8,996	9,147	9,300	9,456	9,614
Demand Totals	8,996	9,147	9,300	9,456	9,614
Difference	0	0	0	0	0

Source: VCWD Urban Water Management Plan (2016)

Table 3.11-2. Single Dry Year Water Supply and Demand Comparison (AF)

	2020	2025	2030	2035	2040
Supply Totals	6,837	6,952	7,068	7,187	7,307
Demand Totals	6,837	6,952	7,068	7,187	7,307
Difference	0	0	0	0	0

Source: VCWD Urban Water Management Plan (2016)

Table 3.11-3. Multiple Dry Year Water Supply and Demand Comparison (AF)

		2020	2025	2030	2035	2040
First Year	Supply totals	6,657	6,769	6,882	6,997	7,114
	Demand totals	6,657	6,769	6,882	6,997	7,114
	Difference	0	0	0	0	0
Second Year	Supply totals	6,747	6,860	6,975	7,092	7,211
	Demand totals	6,747	6,860	6,975	7,092	7,211
	Difference	0	0	0	0	0
Third Year	Supply totals	6,837	6,952	7,067	7,187	7,307
	Demand totals	6,837	6,952	7,067	7,187	7,307
	Difference	0	0	0	0	0

Source: VCWD Urban Water Management Plan (2016)

The Project proposes a 528,710 square foot industrial building on a speculative basis. As the future tenant(s) are unknown, a Light Industrial use is conservatively assumed for purposes of water utility demand. According to the VCWD 2013 Water Master Plan (WMP), the Project would consume 0.13 AFY/1,000 SF, based on a Light Industrial land use. Therefore, the Project would consume approximately 68.73 AFY (VCWD 2014). VCWD indicates that it is confident that it can successfully obtain a combination of prescriptive rights, groundwater leases and purchases, and replenishment water to achieve a production of water up to 9,565.6 AFY in any given year out to year 2035. Build out of current land uses and population growth were considered to project this future water demand (VCWD 2016).

Because the Project is consistent with VCWD's water supply projections that indicate there are sufficient water supplies to serve the project and region, and because the development/connection fees required for Project implementation would help mitigate future new or expanded entitlements that potentially may be needed with future regional growth, Project impacts are considered **less than significant.**

Impact 3.11.3 Sewer Capacity

Threshold:	*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?*

As discussed above in Impact 3.11.1, the wastewater generated at the proposed Project site would discharge to the local sewer line for conveyance to the District's Baldwin Park Trunk Sewer, located at Harlan Avenue in Ramona Parkway. The District's 18-inch diameter trunk sewer has a capacity of 4.3 million gallons per day (mgd) and conveyed a peak flow of 3.2 mgd when last measured in 2013 (District 2019).

The wastewater would be treated at the San Jose Creek WRP located adjacent to the City of Industry, which has a capacity of 100 mgd and currently processes an average of 58.5 mgd. All biosolids and wastewater flows that exceed the capacity of the San Jose Creek WRP would be diverted and treated at the Joint Water Pollution Control Plant located in the City of Carson.

The expected increase in average wastewater flow from the Project is 99,242 gallons per day, after the existing structures have been demolished (Districts 2019a). This slight increase would represent only a nominal increase (0.002%) compared with the District's current demands and would not prevent this facility or other facilities in the Joint Outfall System from operating in compliance with RWQCB requirements. Furthermore, the applicant would be required to pay connection fees to the utility service provider (Districts 2019b). These fees must be paid before connection permits are issued. Among other things, these fees are used to fund improvements needed to continue serving the applicable service area, ensure adequate capacity, and comply with State Water Resources Control Board treatment requirements.

For these reasons, impacts would be **less than significant.**

Impact 3.11.4 Solid Waste Reduction Goals

Threshold:	*Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Waste would be generated during the construction and operation phases of the proposed Project. Construction waste would primarily consist of discarded materials and packaging. Based on the building square footage of 528,170 and the US EPA's construction waste generation factor of 4.34 pounds per sq ft, approximately 1,146 tons of waste would be generated during the construction phase. During long-term operations, solid waste from the proposed Project would be hauled by Athens Services. Based on a Manufacturing/Warehouse waste generation factor of 1.42 pounds/day/100 sq ft obtained from

CalRecycle, the long-term, ongoing operation of the proposed Project could generate approximately 7,508 pounds of waste per day (CalRecycle 2019a). Any materials that are not composted or recycled by Athens Services would be transferred to the Mid-Valley Sanitation Landfill in the City of Rialto. The landfill is permitted to accept a max of 7,500 tons of solid waste per day. It has a remaining capacity of 61,219,377 cubic yards and it anticipated to close in 2033 (CalRecycle 2019b).

Although a precise quantity of construction and demolition debris cannot be specifically determined at this time, mandatory compliance with all applicable state and local regulations governing solid waste, source reduction, and recycling would reduce the amount of construction waste entering landfills. Therefore, conformance with the various state and local source reduction and recycling programs would ensure that the project would not contribute excessive amounts of solid waste to landfills.

For these reasons, impacts would be **less than significant.**

Impact 3.11.5 Solid Waste Regulations

Threshold:	*Would the project comply with federal, state, and local statutes and regulations related to solid waste?*

The proposed Project would be required to comply with all Resource Conservation and Recovery Act (RCRA) Regulations, including Title 40 of the Code of Federal Regulations (CFR), as well as City of Irwindale waste reduction programs. In accordance with Assembly Bill 341, the Project would be required to work with Athens Services to implement a commercial recycling program during the operational phase.

As discussed above, the Project would comply with the various state and local source reduction and recycling programs. The implementation of these programs and policies would reduce the amount of solid waste generated be the proposed Project and diverted to landfills.

For these reasons, impacts would be **less than significant.**

3.11.4 Cumulative Impacts

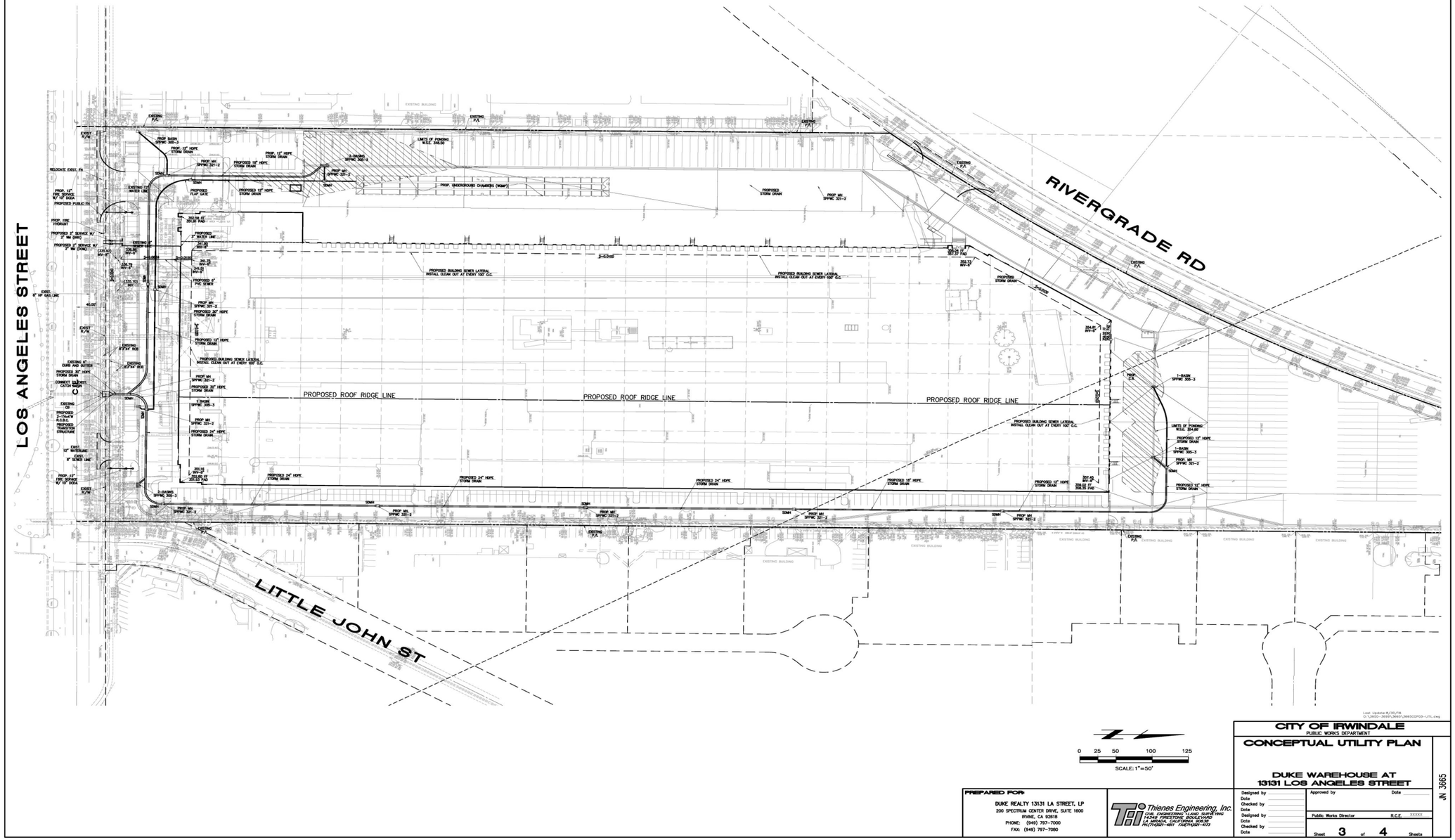
The Project is consistent with utility and service district projections that indicate there is sufficient capacity in existing and planned facilities to serve the Project. As the Project is consistent with General Plan land use and zoning classifications it is not anticipated to have a significant impact on utility service capabilities based on adopted plans and policies. The Project would pay required utility development/connection fees to support Project implementation and help mitigate future new or expanded entitlements that may be needed with future regional growth. Cumulative impacts on Utilities and Services Systems are considered **less than significant.**

3.11.5 Mitigation Measures

No mitigation measures are required.

3.11.6 Level of Significance After Mitigation

No mitigation measures are required and impacts would be less than significant.



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ENVIRONMENTAL CONSULTANTS

Figure 3.11-1. Conceptual Utility Plan

2019-030 Irwindale Industrial Spec Tilt-Up Project

4.0 ENVIRONMENTAL CONSIDERATIONS

This section provides brief discussions of other topics specifically mandated by CEQA, as follows: significant unavoidable adverse impacts, effects found not to be significant, significant irreversible environmental changes, and growth-inducing impacts.

4.1 Significant Unavoidable Adverse Impacts

This section is prepared in accordance with Section 15126.2(b) of the CEQA Guidelines, which requires the discussion of any significant environmental effects that cannot be avoided if a project is implemented. These include impacts that can be mitigated, but cannot be reduced to a less than significant level. Eleven issue areas and their associated environmental impacts were analyzed in detail in Chapter 3.0. According to the environmental impact analysis presented in Chapter 3.0, the Project would result in significant and unavoidable adverse impacts to air quality, greenhouse gases, and cumulative-level traffic impacts.

4.2 Effects Found Not To Be Significant

Section 15128 of the CEQA Guidelines requires a statement that briefly indicates 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. As stated in the CEQA Guidelines, such a statement may be contained in an attached copy of an Initial Study. The Initial Study for the proposed project is included in this EIR as Appendix A. As described and substantiated in Appendix A, the following issue areas were not found to be significant and were not further analyzed in the EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Geology and Soils
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Wildfire

4.3 Significant Irreversible Environmental Changes

Pursuant to Section 15126.2(d) of the CEQA Guidelines, an EIR must address any significant irreversible environmental change which would be caused by the Proposed Project should it be implemented. This discussion would typically include uses of nonrenewable resources during the initial and continued phases of a project that may be irreversible where a large commitment of such resources makes removal or nonuse thereafter unlikely. Examples cited include 1) primary impacts and secondary impacts (such as

highway improvements that provide access to a previously inaccessible area), that generally commit future generations to similar uses;, and 2) irreversible damage that could result from environmental accidents associated with a project.

In the instance of the Proposed Project, development of an industrial warehouse use would result in the construction of the industrial warehouse building and infrastructure on land that is currently vacant, but designated for industrial/business park use and zoned (M-2) Heavy Manufacturing. While consumption of energy supplies and non-renewable or slowly-renewable resources would occur with Project development, the site has been historically in use with manufacturing operations (i.e. hollow core concrete manufacture). The City's General Plan and zoning reflect a long-term commitment to urban uses.

Pursuant to Section 15127 of the CEQA Guidelines. Limitations on Discussion of Environmental Impact, the information required by Section 15126.2(d) concerning irreversible changes need be included in EIRs prepared only in connection with any of the following activities:

- The adoption, amendment, or enactment of a plan, policy or ordinance of a public agency;
- The adoption by a Local Agency Formation Commission of a resolution making determinations; or
- A project which will be subject to the requirement for preparing an environment impact statement pursuant to the requirements of the National Environmental Policy Act if 1969, 42 U.S.C 4321-4347.

In the instance of the Proposed Project, none of the foregoing activities apply. In particular, and as discussed previously, the Project is consistent with the existing General Plan and zoning, and does not require adoption, amendment or enactment of any plan, policy or ordinance of the City of Irwindale. Therefore, no further discussion of this topic in this EIR is required.

4.4 Growth-Inducing Impacts

According to Section 15126.2(e) of the CEQA Guidelines, growth-inducing impacts of the proposed Project shall be discussed in the EIR. Growth-inducing impacts are those effects of the Project that might foster economic or population growth or the construction of new housing, either directly or indirectly, in the surrounding environment. Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place without implementation of the project. For example, development of a project may require additional housing, goods, and services associated with the population increase caused by, or attracted to, the new project. Growth induced from a project may result in significant adverse impacts if the growth is not consistent with the land use plans and growth management plans and policies for the area affected. Thus, it is important to assess the degree to which the growth accommodated by a project would conflict with any applicable land use plan, policy, or regulation.

The environmental effects of induced growth are indirect impacts of the proposed Project. Indirect effects of growth could result in significant, adverse environmental impacts, which could include increased demand on community or public services, increased traffic and noise, degradation of air and water quality, and conversion of agricultural land and open space to developed uses. The Population and Housing

section of the Initial Study (Appendix A) discusses the potential for unplanned population growth in the Project area, either directly or indirectly, and concludes the potential for unplanned growth would be less than significant.

The City's General Plan is consistent with the baseline growth projections contained in Southern California Association of Governments (SCAG) regional planning documents, which estimates that there will be 500 households and 21,500 jobs in Irwindale by 2040 (SCAG 2015). The primary objectives of the General Plan's Community Development Element are to assist in the management of future growth, to improve the City's physical appearance, and to minimize potential land use conflicts. According to the Community Development Element, many of the City's larger mining properties available for residential, commercial, and industrial development are becoming available for redevelopment in the recent years. The City anticipates that these properties will attract new businesses and support job growth locally and regionally (City of Irwindale 2008).

The proposed Project aligns with these redevelopment goals and would provide additional employment on site. The Project site was used as a concrete manufacturing business from 1967 until 2017 and is designated "Industrial/Business Park" in the City's General Plan. The Project would demolish existing buildings onsite and construct an industrial warehouse with associated parking, landscaping, and utilities. Thus, the Project would be consistent with the site's current zoning designation of Heavy Manufacturing (M-2). The site is served by existing public roadways and utility infrastructure already installed beneath public rights of way that adjoin the property. The Project does not include the extension of new roads or propose major new infrastructure that could indirectly induce population growth.

According to SCAG, Irwindale is expected to employ approximately 21,500 people by 2040 (SCAG 2015). The Project would contribute new jobs that would be aligned with employment growth projections that have been calculated by SCAG. Temporary project-related construction jobs would likely be filled by existing residents in Irwindale and surrounding areas. Similarly, industrial/warehouse employees would likely come from the existing labor pool in Irwindale and surrounding communities, and accordingly, the Project would not result in growth that was not already anticipated by the City of Irwindale General Plan or other regional planning documents.

The City of Irwindale will ensure that the rate of residential growth can be accommodated in light of the City's physical and economic constraints and that this growth can be served by public services and infrastructure. It is important to note that the City's employment base draws employees from adjacent jurisdictions in Los Angeles, Riverside and San Bernardino Counties; the majority of people who work in the City do not live in Irwindale. Therefore, it is not anticipated that the employment generated by the proposed Project would lead to a substantial influx of residents to the City. The Proposed Project would not generate substantial population growth, and would not result in significant adverse secondary effects related to induced growth.

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5.0 ALTERNATIVES

The alternatives analysis consists of the following components: an overview of California Environmental Quality Act (CEQA) requirements for alternatives analysis, descriptions of the alternatives evaluated, a comparison between the anticipated environmental effects of the alternatives and those of the Proposed Project, and identification of an environmentally superior alternative.

5.1 Introduction

CEQA requires that an EIR consider a reasonable range of alternatives to a proposed project that can attain most of the basic project goals but has the potential to reduce or eliminate significant adverse impacts of the proposed project and may be feasibly accomplished in a successful manner, considering the economic, environmental, social, and technological factors involved. An EIR must evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6(a), (d) and (e)). If certain alternatives are found to be infeasible, the analysis must explain the reasons and facts supporting that conclusion.

Section 15126.6(d) also requires that, if an alternative would cause one or more significant effects in addition to those caused by a proposed project, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. One of the alternatives analyzed must be the "No Project" alternative (CEQA Guidelines Section 15126.6(e)). The EIR must also identify alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and should briefly explain the reasons underlying the lead agency's determination (CEQA Guidelines Section 15126.6(c)).

CEQA Guidelines Section 15126.6(e)(2) requires that the EIR identify the environmentally superior alternative. If that alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. The environmentally superior alternative is discussed in Section 5.4.

5.2 Development of Project Alternatives

This section discusses the reasoning for selecting and rejecting alternatives. This section also summarizes the assumptions identified for the alternatives. The range of alternatives included for analysis in an EIR is governed by the "rule of reason." The primary objective is formulating potential alternatives and choosing which ones to analyze to ensure that the selection and discussion of alternatives fosters informed decision-making and informed public participation. This is accomplished by providing sufficient information to enable readers to reach conclusions themselves about such alternatives. This approach avoids assessing an unmanageable number of alternatives or analyzing alternatives that differ too little to provide additional meaningful insights about their environmental effects. The alternatives addressed in this Draft EIR were selected in consideration of one or more of the following factors:

- The extent to which the alternative would avoid or reduce any of the identified significant effects of the project and yet would accomplish most of the basic objectives of the project.

- The feasibility of the alternative, taking into account site suitability and surrounding existing land uses, and consistency with applicable public plans, policies, and regulations.
- The appropriateness of the alternative in contributing to a reasonable range of alternatives necessary to permit a reasoned choice.

The alternatives analyzed in this Draft EIR were ultimately chosen based on each alternative's ability to feasibly attain the basic project objectives while avoiding or reducing one or more of the project's significant effects. The analysis provides readers with adequate information to compare the effectiveness of identified mitigation or significant adverse impacts and to enable readers to make decisions about the project. CEQA requires environmental impact reports to address a reasonable range of reasonable alternatives, but not all potential alternatives.

5.3 Alternatives Considered but Rejected

5.3.1 New or Reestablished Concrete Manufacturing Use

This alternative would propose to reestablish a concrete manufacturing business on the site consistent with prior historic use of the site. This alternative was rejected for several reasons. First, as evidenced by the closure of prior concrete manufacturing use at the site, the market for prefabricated concrete and hollow core concrete materials has diminished with the mining of nearby quarries in decline and their conversion to other viable uses likely in the future. Second, the remaining existing buildings and structures at the site are in disrepair, would not be usable, and are scheduled for demolition. Finally, the applicant has acquired the site to establish a viable industrial warehouse use that meets project objectives for proximity to regional markets and goods movement corridors, and that conforms with City General Plan and zoning. Therefore, this alternative is not feasible and has been rejected.

5.4 Alternatives Carried Forward For Analysis

5.4.1 Alternative 1 – No Project/No Build

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate the specific alternative of "no project" along with its impact. As stated in this section of the CEQA Guidelines, the purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. As specified in Section 15126.6(e)(3)(B) of the CEQA Guidelines, the no project alternative for a development project consists of the circumstance under which a proposed project does not proceed. Section 15126.6(e)(3)(B) further states that "in certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained."

Under Alternative 1, the project site demolition of the 20,000 SF brick and concrete office building, a small mobile office, an approximate 2,883 SF office building, and an approximate 9,618 SF maintenance building would still occur, but the site would remain vacant indefinitely. While the project site was previously occupied by a concrete manufacturing business, it was vacated by that business in 2017. And the proposed warehouse, parking lots, and landscaping would not be constructed on the project site.

The No Project/No Build Alternative would result in the avoidance of environmental impacts relative to the proposed Project. Table 5.0-1 provides a summary of the comparison of the environmental effects of the Project to the alternatives presented in this section, including the No Project/No Build Alternative.

5.4.1.1 Ability to Meet Project Objectives

Alternative 1 would not achieve any of the project objectives. The No Project/No Build alternative would not provide a warehouse that is accessible to regional markets. No economic use of the site consistent with the existing General Plan and zoning would occur. An industrial/warehouse use compatible with surrounding uses and in conformance with established City Commercial and Industrial Design Guidelines would not be developed. No additional employment opportunities would be created at the project site.

5.4.1.2 Comparison of the Effects of Alternative 1 to the Proposed Project

Aesthetics

Under the No Project/No Build Alternative, the visual character and quality of the vacant site would remain as it currently exists. The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. The vacant site is largely devoid of vegetation and provides no significant visual amenity for surrounding uses. No structures or landscaping would be introduced on the property beyond that which occurs under existing conditions. However, as with the Proposed Project, impacts to aesthetics would be less than significant.

Agriculture

Currently, the project site and its surrounding areas are entirely developed and not used for agricultural or forestry uses. It is not zoned for agricultural use, nor is it under a Williamson Act contract. Alternative 1 would not include any ground-disturbing physical impacts. Therefore, there would be no impact to agriculture, which is identical to the proposed Project.

Air Quality

Under Alternative 1, no development would occur on the project site; therefore, there would be no potential sources of short-term (construction) or long-term (operational) air pollutant emissions associated with warehouse and light industrial land uses. The Project's short- and long-term air quality impacts, including exceedance of SCAQMD NOx standards, would be avoided under the Alternative. Thus, the significant long-term operational impacts related to air quality associated with the proposed project would be avoided under Alternative 1.

Biological Resources

The No Project/No Build Alternative would leave the property in its existing condition. The site is located in a heavily developed area zoned for heavy manufacturing and is devoid of significant biological resources. No impacts to biological impacts would occur. Impacts to biological resources would be similar to the proposed Project.

Cultural Resources

No known historic, archaeological, unique geological features, or human remains are present on the Project site under existing conditions as a result of the CHRIS records search and other records sources. Construction impacts associated with the proposed project would be avoided because no development would occur on the project site under the No Project/No Build Alternative. The existing structures would remain in place and would remain vacant, unused industrial structures. The potential for uncovering previously unknown archaeological or paleontological resources would be avoided because excavation would not take place on the project site. Impacts to cultural resources would be less than the proposed Project.

Energy

Energy impacts associated with the proposed Project would be avoided because no development would occur on the project site under the No Project/No Build Alternative. The Alternative would not require any increase in natural gas or electricity associated with construction, operation, or transportation. Thus, energy impacts associated with construction and operation of the proposed Project would be avoided under Alternative 1.

Geology and Soils

This Alternative would not construct any buildings on the project site. As such, no impact would occur with respect to earthquake fault zones, seismic ground shaking, liquefaction, and landslides. The site is not at risk due to instability, expansive soils, or erosion. No impacts to paleontological resources or unique geologic resources are anticipated. As such, impacts to geology and soils would be avoided relative to the proposed Project.

Greenhouse Gases

Under the No Project/No Build Alternative, no new development would occur on the Project site; therefore, there would be no potential sources of near-term or long-term GHG emissions. Selection of this Alternative would avoid the proposed Project's near- and long-term effects associated with GHG emissions. The Project impact associated with exceeding the SCAQMD industrial threshold would be avoided. Impacts would be less than the proposed Project.

Hazards and Hazardous Materials

Because no development would occur under the No Project/No Build Alternative, no impacts related to hazards or hazardous materials would occur. With mitigation the proposed Project impacts associated with hazards and potential use, storage or transport of hazardous materials would be less than significant. However, selection of the No Project/No Build Alternative would avoid the proposed Project's potential impacts related to hazards and hazardous materials.

Hydrology and Water Quality

No changes to existing hydrology and drainage conditions would occur under the No Development Alternative. No storm water improvements would be constructed and rainfall would be discharged from

the site as sheet flow, as occurs under existing conditions. Although the proposed Project would alter existing ground contours of the Project site, which would result in changes to the site's existing drainage patterns, surface water runoff discharged from the Project site would be reduced under the proposed Project. Additionally, much of the stormwater leaving the site would not be filtered via Best Management Practices (BMPs), and therefore would continue to contain sediment, as occurs under existing conditions. Accordingly, surface water runoff and long-term sedimentation impacts and would be greater than impacts that would occur under the proposed Project.

Land Use and Planning

The No Development Alternative would leave the property in its existing condition as vacant, disturbed, undeveloped land and the property would not be developed in accordance with the General Plan Business Park/Light Industrial land use designation. Thus, selection of the No Project/No Build Alternative would not establish a viable land use for the site consistent with local plans, policies and programs.

Mineral Resources

The Project is not located on land associated with a past, current, or anticipated mining location. As with the proposed Project, no mining activities would occur from this Alternative. No impacts to mineral resources would occur, as with the proposed Project.

Noise

Noise impacts associated with the proposed project would be avoided because no development would occur on the project site under the No Project/No Build Alternative. No noise would occur resulting from construction or operation at the project site. Therefore, impacts to noise would be less than the proposed Project.

Population and Housing

The No Project/No Build Alternative would not generate any new employment in the City. This Alternative would not result in population growth, would not displace existing housing, and would not require additional housing construction. As such, no impacts to population and housing would occur, which is similar to the proposed Project.

Public Services

Under Alternative 1, impacts to public services would be reduced when compared to the proposed project. Alternative 1 would not construct any facilities and the property would remain vacant. Therefore, Alternative 1 would result in reduced impacts when compared to the proposed project.

Recreation

No impact to existing neighborhood parks would occur due to implementation of this Alternative. The Alternative would not increase local or regional population that would result in any increase in demand for neighborhood or regional parks. Impacts would be similar to the proposed Project.

Transportation

Traffic impacts associated with the proposed project would be avoided under this Alternative. Significant Project impacts to several study area intersections would be avoided. Impacts would be less than the proposed Project.

Tribal Cultural Resources

Under this Alternative, the potential for uncovering previously unknown archaeological resources would be avoided because excavation would not take place on the project site. As such, no impacts to tribal cultural resources would occur.

Utilities and Service Systems

This Alternative would not require connections to existing utility lines, including gas, water, and sewer. As such, water use, energy consumption, wastewater generation, and solid waste generation would be less when compared to the proposed Project. Overall, impacts to utilities would be avoided.

Wildfire

As with the proposed Project, this Alternative is not located within or near a very high fire hazard severity zone. The project site is located within a heavily industrialized area and is not in the immediate vicinity of any natural or wildlife areas. The site would remain vacant as it currently exists. No impact to wildfire would occur, which would be identical to the proposed Project.

5.4.2 Alternative 2 – Reduced Intensity

The Reduced Intensity Alternative was identified by the Lead Agency to evaluate the comparative environmental impacts associated with construction of a project with less building square footage. Under this Alternative, a smaller warehouse with similar landscaping would be constructed. The Project's 528,710 gross SF building area would be reduced by 15 percent, which yields a warehouse building of approximately 450,000 gross SF as compared to the proposed Project. The building footprint would remain within the footprint of the proposed Project. Access driveways to the site would remain the same.

5.4.2.1 Ability to Meet Project Objectives

A warehouse that is 450,000 SF would meet some of the project objectives. A warehouse of a reduced size would be built on a site that is accessible to regional markets, would be consistent with the existing General Plan and zoning, and could be compatible with surrounding uses and conforms with established City Commercial and Industrial Design Guidelines. If the reduction in the building footprint occurred by narrowing the building width and moving the east side of the building slightly further to the west, a slightly greater buffer distance between truck loading docks and the nearest residential properties to the east could be created. However, some of the Project's economic objectives would be met to a lesser degree than they would be met under the proposed Project. For example, a smaller warehouse would require fewer employees, thereby reducing the Project's ability to foster economic growth and reducing the range of employment opportunities that would be provided. Moreover, it is unclear whether the

market for potential industrial warehouse users at this location would be materially reduced with the reduction in total warehouse building size.

5.4.2.2 Comparison of the Effects of Alternative 2 to the Proposed Project

Aesthetics

Under Alternative 2, the visual character and quality of the site and property would be very similar to the proposed Project. Even with the reduction in building intensity the aesthetics of the building and site, as seen from off-site, would be similar. There are no public views of scenic vistas within the vicinity of the proposed Project site, nor are there any designated state scenic highways in the vicinity. A lighting plan will be submitted to the City and the building design would fully comply with the City of Irwindale Commercial and Industrial Design Guidelines. Impacts to aesthetics would be similar to those of the proposed Project.

Agriculture

The proposed site and its surrounding areas are entirely developed and not used for agricultural or forestry uses. It is not zoned for agricultural use, nor is it under a Williamson Act contract. Therefore, this Alternative would have no impact on agriculture, which is identical to the proposed Project.

Air Quality

Alternative 2 would result in the emission of pollutants during short-term construction and long-term operational activities, as with the proposed Project. Under this Alternative, the construction schedule would be slightly reduced as compared to the proposed Project, due to the approximately 15 percent reduction in building area. Additionally, pollutant emission levels would be proportionally less than the proposed Project.

The Project could produce odors during proposed construction activities resulting from construction equipment exhaust, and applications of asphalt or architectural coatings. However, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent, and would cease with 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.

During long-term operation, the project site would contain a warehouse building, the operating characteristics of which are not typically associated with objectionable odors. The temporary storage of refuse associated with the Alternative'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 practices, thereby precluding any significant odor impact. Like the proposed Project, the Alternative would be required to comply with SCAQMD Rule 402 during long-term operation. As such, long-term operation of the Alternative would not create objectionable odors affecting a substantial number of people.

Overall, air quality impacts of the Reduced Density Alternative would be reduced proportionally to the 15% building square footage reduction. However, even with implementation of CARB and SCAQMD recommendations in mitigation measure **AQ-1**, it is likely that heavy-duty truck travel would still contribute to the SCAQMD daily significance threshold for industrial uses being exceeded. The Alternative would be considered cumulatively considerable in terms of its effect on regional air quality. However, impacts would be slightly less than the proposed Project.

Biological Resources

The site is highly disturbed from past uses and does not contain habitat for sensitive biological resources. No wetlands or waters are located on the site. Although t two isolated trees occur within the north central portion of the Proposed Project site, and several trees occur along the Proposed Project site frontage with Los Angeles Street, removal of these trees would still occur with Alternative 2 These trees provide possible nesting habitat for raptors in addition to passerine species. Although removal of these trees would not be considered a significant biological resource impact, all nesting migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA). To ensure that there would be no impacts to protected active nests, a City condition of approval would be established assuring compliance with the MBTA. As with the proposed Project, this alternative would not have a significant impact on biological resources.

Cultural Resources

No known historic, archaeological, unique geological features, or human remains are present on the Project site under existing conditions as a result of the CHRIS records search and other records sources. However, it is possible that intact archaeological deposits are present at subsurface levels, thus significant impacts may occur from the discovery of unknown resources during ground disturbing activities from Project construction. Impacts to unknown archaeological resources would be less than significant with the implementation of Mitigation Measure **CUL-1** that includes an opportunity for tribal participation in monitoring of subsurface excavations. In the unexpected event that human remains are unearthed during construction activities, impacts would be potentially significant, and as such, implementation of Mitigation Measure **CUL-2** is required. With the implementation of these two mitigation measures, cultural resource impacts from the Reduced Density Alternative would be similar to those of the proposed Project.

Energy

Like the proposed Project, Alternative 2 would be required to comply with California Energy Efficiency Standards for Nonresidential Buildings (Title 24) and the 2016 Building and Energy Efficiency Standards adopted by the Californian Energy Commission (CEC), which include new construction of nonresidential buildings. The Alternative would also be required to comply with the latest California Green Building Standards (Title 24, California Code of Regulations) that establish planning and design standards for sustainable site development, energy efficiency (in excess of California Energy Code Requirements) and water conservation, among other environmental design factors. As a result of the 15% reduction in building square footage, energy impacts would be proportionally reduced and therefore slightly lower than the proposed Project.

Geology and Soils

Alternative 2 would be constructed on the same site as the proposed Project. As such, a less than significant impact would occur with respect to earthquake fault zones, seismic ground shaking, liquefaction, and landslides. The site is not at risk due to instability, expansive soils, or erosion. No impacts to paleontological resources or unique geologic resources are anticipated. As such, impacts to geology and soils would be the same as the proposed Project.

Greenhouse Gases

Construction-related activities that would generate greenhouse gas (GHG) emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Proposed Project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use (i.e. trucks and personal vehicles). Due to the reduction in the amount of traffic associated with Reduced Project Alternative, mobile source GHG emissions would decrease slightly as compared to the proposed Project. Additionally, because the Reduced Density Alternative would involve less building area than the Project, fossil fuel use for building operation would also be slightly reduced under this Alternative. However, even with implementation of CARB and SCAQMD recommendations contained in mitigation measure **GHG-1**, heavy-duty truck travel would result in the SCAQMD industrial land use significance threshold to be exceeded. Therefore, this Alternative would reduce the severity of Project's cumulatively considerable GHG emissions impact, but not likely to below a level of significance.

Hazards and Hazardous Materials

The Project site is listed in multiple environmental hazards databases as searched by Environmental Data Resources, Inc. (EDR) as part of the ESA. In each case, no substantive information was provided that would indicate a significant environmental threat or concern to the proposed Project site. Like the proposed Project, it is possible that hazardous materials could be used during the course of daily operations, although the amount of hazardous materials would be slightly lower under this Alternative. Nevertheless, implementation of Mitigation Measure **HAZ-1** would reduce hazardous impacts to a less than significant level.

As with the proposed Project, Alternative 2 would have no impact on schools or airports. During the City of Irwindale's required review of the Proposed Project's applications, the Project's design would be reviewed to ensure that adequate access to and from the site and around the proposed buildings is provided for emergency vehicles. Overall, impacts to hazards and hazardous materials would be similar to those of the proposed Project alternative.

Hydrology and Water Quality

The Reduced Project Alternative would have the same ground-disturbing physical impacts as the proposed Project, attract the same types of building occupants, and have a near-identical drainage system design. Impervious surface coverage also would be approximately the same because the 15% reduction in building coverage would be offset by increased vehicle parking areas. This Alternative would have the

same drainage system design as the proposed Project, therefore Alternative 2's surface water runoff impacts would be the same as the proposed Project.

Similar to the Proposed Project, implementation of this Alternative would require preparation of a Storm Water Pollution Prevention Plan (SWPPP) to address construction-related water quality issues, as well as compliance with a site-specific Water Quality Management Plan (WQMP) and its associated BMPs. Therefore, implementation of this Alternative would result in less than significant impacts with preparation of a SWPPP and compliance with a site-specific WQMP and its associated BMPs. The Reduced Project Alternative would result in similar hydrology and water quality impacts as the Project.

Land Use and Planning

Similar to the proposed Project, this Alternative would construct a warehouse building consistent with the site's current M-2 Heavy Manufacturing zoning designation. The Alternative would not divide and established community, nor would it conflict with any land use plan, policy, or regulation. However, this Alternative would provide a slightly less intensive use of the property, therefore it would not foster the same economic growth as the proposed Project. As such, selection of this Alternative would not fully meet the Project's economic, land use and employment objectives.

Mineral Resources

The Project is not located on land associated with a past, current, or anticipated mining location. As with the proposed Project, this Alternative would not include any mining activities. Impacts to mineral resources would be identical to the proposed Project.

Noise

As with the proposed Project, noise associated with this Alternative would occur during near-term construction activities and under long-term operation. Construction activities on the Project site may produce groundborne vibration or groundborne noise levels during earthwork/grading and the operation of heavy machinery. The Reduced Density Alternative would have similar ground-disturbing physical impacts as the proposed Project, though the building square footage would be reduced. Therefore, noise associated with short-term construction would be slightly less than the proposed Project. Long-term operation of this Alternative is not anticipated to result in perceptible levels of groundborne vibration or noise. Therefore, impacts to noise would be slightly lower than the proposed Project.

Population and Housing

The Reduced Density Alternative would likely generate fewer jobs than the proposed Project. Like the proposed Project, this Alternative would not result in growth that was not already anticipated by the City of Irwindale General Plan. Additionally, this Alternative would not displace existing housing and would not require additional housing construction. As such, impacts to population and housing would be less than significant and similar to the proposed Project.

Public Services

A smaller building and scaled-down operational scenario would place reduced, but similar demands on existing public facilities and service systems as compared to the proposed Project. This Alternative is not expected to generate significant demands for additional fire and police protection, l schools, parks, or other public facilities. The Alternative would implement a traffic control plan and would not impact emergency response times. Impacts to this threshold would be less than significant and similar to those of the proposed Project.

Recreation

No impact existing neighborhood parks would occur due to implementation of this Alternative. The Alternative would not increase local or regional population that would result in any increase in demand for neighborhood or regional parks. Impacts would be similar to the proposed Project.

Transportation

A 15% reduction in building area would slightly reduce traffic impacts when compared to the proposed Project. A smaller warehouse would involve fewer employees, thereby leading to a decrease in the number of trips to and from the project site. The Reduced Intensity Alternative would result in a net Project total of 2,717 daily trips, as compared with the proposed Project total of 3,210 (Appendix J).

Despite the reduction in daily traffic trips that would occur with selection of this Alternative, this Alternative is not expected to avoid any of the Project's direct or cumulatively considerable and unavoidable impacts to study area intersections or roadway segments. As with the proposed Project, implementation of Mitigation Measures **TRANS-1** through **TRANS-4**, the Project's fair share contributions through a combination of payment of DIF fees, physical construction of improvements, and/or fair share monetary contribution would reduce the Alternative's contribution to cumulative-level impacts to a less than significant level. Overall, the Alternative's reduction in building square footage would proportionally reduce traffic impacts, but not below a significant level. Impacts would be similar but slightly less than the proposed Project.

Tribal Cultural Resources

The project site's proximity to the San Gabriel River and associated traditional Native American trade routes makes it sensitive for tribal cultural resources and the potential for discovery of buried cultural resources in native soils at the site. It is possible that grading and development could result in the discovery of cultural resources. As with the proposed Project, the implementation of Mitigation Measures **CUL-1** and **CUL-2** would include an opportunity for tribal participation in monitoring of subsurface excavations. Impacts would be less than significant, as with the proposed Project.

Utilities and Service Systems

This Alternative would result in an overall decrease in the building size relative to the proposed Project. Alternative 2 would install connections to existing utility lines, including gas, water, and sewer, off Los Angeles Boulevard. As such, water use, wastewater generation, and solid waste generation would be slightly less when compared to the proposed Project. Stormwater discharges and runoff volumes are

anticipated to be relatively similar to those of the proposed project, since the project site would be generally impervious and similar project site runoff retention and treatment standards would be required. Overall, impacts would be slightly reduced relative to the less than significant impacts of the proposed Project.

Wildfire

As with the proposed Project, this Alternative is not located within or near a very high fire hazard severity zone. The project site is located within a heavily industrialized area and is not in the immediate vicinity of any natural or wildlife areas. Access to the site is planned at multiple driveway locations on Los Angeles Street and at Rivergrade Road, thereby facilitating emergency response and evacuation, if necessary. No impact to wildfire would occur, which is the same as the proposed Project.

5.4.3 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) indicates that an analysis of alternatives to a project shall identify an Environmentally Superior Alternative among the alternatives evaluated in an EIR. The CEQA Guidelines also state that should it be determined that the No Project Alternative is the Environmentally Superior Alternative, the EIR shall identify another Environmentally Superior Alternative among the remaining alternatives.

A comparative summary of the environmental impacts associated with each alternative is provided in Table 5-1. As shown, Alternative 1, the No Project (No Project/No Build) Alternative, would be the environmentally superior alternative, as it would result in no new environmental impacts, would avoid several of the proposed project's impacts and would eliminate the significant and unavoidable impacts identified for the proposed project related to air quality, GHGs, and traffic. However, Alternative 1 would not feasibly attain the basic objectives of the Project.

Alternative 2, Reduced Intensity Project (450,000 SF) is, therefore, an environmentally superior alternative to the proposed Project. This alternative would reduce several of the proposed project's traffic and air quality impacts, though not to less than significant levels. This alternative would meet the basic project objectives, although to a lesser degree when compared with the proposed Project.

Table 5-1. Comparison of Impacts

Impact Area	Proposed Project	Alternative 1	Alternative 2
Air Quality	Significant and unavoidable	Impacts avoided	Impacts reduced but would remain significant and unavoidable
Cultural Resources	Less than significant with incorporation of mitigation measures	Impacts avoided	Similar impacts
Energy	Less than significant	Impacts avoided	Similar impacts
Greenhouse Gas Emissions	Significant and unavoidable	Impacts avoided	Impacts reduced but would remain significant and unavoidable
Hazards & Hazardous Materials	Less than significant with incorporation of mitigation measures	Impacts avoided	Similar impacts
Hydrology & Water Quality	Less than significant	Impacts avoided	Similar impacts
Land Use & Planning	Less than significant	Slightly greater impacts	Similar impacts
Noise	Less than significant	Impacts avoided	Impacts reduced
Transportation	Significant and unavoidable	Impacts avoided	Impacts reduced but would remain significant and unavoidable
Utilities & Service Systems	Less than significant	Impacts avoided	Similar impacts
Tribal Cultural Resources	Less than significant with incorporation of mitigation measures	Impacts avoided	Similar impacts
Meets Most of Project Objectives?	Yes	No	Yes

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8.0 APPENDICES

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