CITY OF INDUSTRY
PROPOSED CHESTNUT STREET WAREHOUSE PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

Prepared for:

CITY OF INDUSTRY
15625 E. STAFFORD STREET, SUITE 100
INDUSTRY, CA 91744

Prepared by:

Michael Baker INTERNATIONAL

3900 KILROY AIRPORT WAY, SUITE 120
LONG BEACH, CA 90806

AND

PLACEWORKS

3 MACARTHUR PLACE, SUITE 1100
SANTA ANA, CALIFORNIA 92707

JULY 2016

City of Industry

Proposed Chestnut Street Warehouse Project

Draft Environmental Impact Report

Prepared for:

City of Industry
15625 E. Stafford Street, Suite 100
Industry, CA 91744

Prepared by:

Michael Baker International
3900 Kilroy Airport Way, Suite 120
Long Beach, CA 90806

And

Placeworks
3 MacArthur Place, Suite 1100
Santa Ana, California 92707

July 2016

Table of Contents

1. Executive Summary 1-1
   - 1.1 INTRODUCTION 1-1
   - 1.2 ENVIRONMENTAL PROCEDURES 1-1
   - 1.3 PROJECT LOCATION 1-3
   - 1.4 PROJECT SUMMARY 1-4
   - 1.5 SUMMARY OF PROJECT ALTERNATIVES 1-4
   - 1.6 NO PROJECT ALTERNATIVE 1-4
   - 1.7 REDUCED INTENSITY ALTERNATIVE 1-4
   - 1.8 ISSUES TO BE RESOLVED 1-5
   - 1.9 AREAS OF CONTROVERSY 1-5
   - 1.10 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION 1-5
2. Introduction 2-1
   - 2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT 2-1
   - 2.2 NOTICE OF PREPARATION AND INITIAL STUDY 2-1
   - 2.3 SCOPE OF THIS DEIR 2-2
   - 2.4 INCORPORATION BY REFERENCE 2-3
   - 2.5 FINAL EIR CERTIFICATION 2-3
   - 2.6 MITIGATION MONITORING 2-4
3. Project Description 3-1
   - 3.1 PROJECT LOCATION 3-1
   - 3.2 STATEMENT OF OBJECTIVES 3-1
   - 3.3 PROJECT CHARACTERISTICS 3-2
   - 3.4 INTENDED USES OF THE EIR 3-3
   - 3.5 REFERENCES 3-17
4. Environmental Setting 4-1
   - 4.1 INTRODUCTION 4-1
   - 4.2 REGIONAL ENVIRONMENTAL SETTING 4-1
   - 4.3 LOCAL ENVIRONMENTAL SETTING 4-3
   - 4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS 4-7
   - 4.5 REFERENCES 4-9
5. Environmental Analysis
   - 5.1 AIR QUALITY 5.1-1
   - 5.2 CULTURAL RESOURCES 5.2-1
   - 5.3 GREENHOUSE GAS EMISSIONS 5.3-1
   - 5.4 HAZARDS AND HAZARDOUS MATERIALS 5.4-1
   - 5.5 NOISE 5.5-1
   - 5.6 TRANSPORTATION AND TRAFFIC 5.6-1
6. Significant Unavoidable Adverse Impacts 6-1
   - 6.1 AIR QUALITY 6-1
   - 6.2 GREENHOUSE GAS EMISSIONS 6-2

7. Alternatives to the Proposed Project 7-1
7.1 INTRODUCTION 7-1
7.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS 7-2
7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS 7-4
7.4 NO PROJECT/NO DEVELOPMENT ALTERNATIVE 7-5
7.5 REDUCED INTENSITY ALTERNATIVE 7-9
7.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE 7-12
8. Impacts Found Not to Be Significant 8-1
8.1 ASSESSMENT IN THE INITIAL STUDY 8-1
9. Significant Irreversible Changes Due to the Proposed Project 9-1
9.1 REFERENCES 9-6
10. Growth–Inducing Impacts of the Proposed Project 10-1
11. Qualifications of Persons Preparing EIR 11-1
Appendices

Tables

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation 1-6
Table 3-1 Building and Site Characteristics Summary 3-3
Table 4-1 Cumulative Projects List 4-8
Table 5.1-1 Ambient Air Quality Standards for Criteria Pollutants 5.1-2
Table 5.1-2 Recommendations on Siting New Sensitive Land Uses Near Air Pollutant Sources 5.1-7
Table 5.1-3 Attainment Status of Criteria Pollutants in the South Coast Air Basin 5.1-11
Table 5.1-4 Ambient Air Quality Monitoring Summary 5.1-12
Table 5.1-5 SCAQMD Significance Thresholds 5.1-14
Table 5.1-6 SCAQMD Localized Significance Thresholds 5.1-16
Table 5.1-7 SCAQMD Construction Localized Significance Screening Thresholds 5.1-16
Table 5.1-8 SCAQMD Screening-Level Operational Localized Significance Thresholds 5.1-17
Table 5.1-9 SCAQMD Toxic Air Contaminants Incremental Risk Thresholds 5.1-17
Table 5.1-10 Equipment-Specific Grading Rates 5.1-19
Table 5.1-11 Maximum Daily Regional Construction Emissions 5.1-21
Table 5.1-12 Maximum Daily Operational Phase Regional Emissions 5.1-22
Table 5.1-13 Localized Construction Emissions 5.1-23
Table 5.1-14 Localized On-Site Operational Emissions 5.1-24
Table 5.1-15 Health Risk Assessment Results 5.1-25
Table 5.1-16 Maximum Daily Regional Construction Emissions – Mitigated 5.1-30
Table 5.1-17 Maximum Daily Operational Phase Regional Emissions – Mitigated 5.1-31
Table 5.1-18 Health Risk Assessment Results – Mitigated 5.1-31
Table 5.3-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2 ..... 5.3-2
Table 5.3-2 Summary of GHG Emissions Risks to California 5.3-5

Table 5.3-3 Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target 5.3-10
Table 5.3-4 Project-Related GHG Emissions 5.3-18
Table 5.3-5 Project-Related GHG Emissions – Mitigated 5.3-23
Table 5.4-1 Health Risk Assessment Results: with and without Mitigation.....5.4-11
Table 5.5-1 Change in Apparent Loudness.....5.5-2
Table 5.5-2 Typical Noise Levels 5.5-3
Table 5.5-3 Community Noise and Land Use Compatibility.....5.5-6
Table 5.5-4 County of Los Angeles Exterior Noise Standards.....5.5-8
Table 5.5-5 County of Los Angeles Mobile Construction Equipment Noise Limits 5.5-8
Table 5.5-6 County of Los Angeles Stationary Construction Equipment Noise Limits.....5.5-9
Table 5.5-7 Existing Conditions Traffic Noise Levels 5.5-10
Table 5.5-8 Project-Related Construction Noise Levels.....5.5-14
Table 5.5-9 Vibration Levels for Construction Equipment 5.5-15
Table 5.5-10 Construction Vibration Levels at Nearest Buildings.....5.5-16
Table 5.5-11 Existing Conditions Traffic Noise Increases.....5.5-18
Table 5.5-12 2017 Conditions Traffic Noise Increases.....5.5-19
Table 5.5-13 Source Noise Levels for Complete Trucking Operations at Reference Distance of 50 Feet 5.5-22
Table 5.5-14 Compliance Assessment for Truck Maneuvering Activities for 24-Hour Operations.....5.5-23
Table 5.5-15 Compliance Assessment for Truck Maneuvering Activities for 11-Hour Operations.....5.5-23
Table 5.6-1 Traffic Study Area Facilities.....5.6-1
Table 5.6-2 ICU Level of Service Ranges 5.6-9
Table 5.6-3 HCM Intersection Level of Service and Average Control Delay per Vehicle 5.6-10
Table 5.6-4 Existing Level of Service 5.6-13
Table 5.6-5 Project Trip Generation.....5.6-15
Table 5.6-6 Facility Analysis Summary for Existing Conditions, With and Without Project 5.6-16
Table 5.6-7 Future (2017) Level of Service Without Project 5.6-19
Table 5.6-8 Facility Analysis for Buildout (2017) With and Without Project Conditions.....5.6-21
Table 7-1 Summary of Development Alternatives.....7-5
Table 8-1 Impacts Found Not to Be Significant.....8-1
Table 9-1 Nonresidential Electricity Consumption in Los Angeles County 2007–2014.....9-3
Table 9-2 Nonresidential Natural Gas Consumption in Los Angeles County 2007–2014.....9-3
Table 9-3 Automotive Fuel Consumption in Los Angeles County 2007–2016.....9-4
Table 9-4 Chestnut Street Energy Consumption.....9-4

Figures

Figure 3-1 Regional Location 3-5
Figure 3-2 Local Vicinity 3-7
Figure 3-3 Aerial Photograph 3-9
Figure 3-4 Proposed Site Plan 3-11
Figure 3-5a Building Elevations 3-13
Figure 3-5b Building Elevations 3-15
Figure 5.6-1 Traffic Study Area 5.6-3
Figure 5.6-2 Proposed Onsite Circulation System 5.6-5
Figure 5.6-3 Existing Lane Geometry and Intersection Controls 5.6-7
Figure 5.6-4 Existing Traffic Volumes 5.6-11
Figure 5.6-5 Existing Plus Project Traffic Volumes 5.6-17
Figure 5.6-6 Project Buildout (Year 2017) Without Project Traffic Volumes 5.6-23
Figure 5.6-7 Project Buildout (Year 2017) With Project Traffic Volumes 5.6-25
Figure 5.6-8 Recommended Intersection Improvements 5.6-27

1 Executive Summary

1. Executive Summary

1.1 INTRODUCTION

This Draft Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed Chestnut Street Warehouse Project. The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An environmental impact report (EIR) analyzes potential environmental consequences in order to inform the public and support informed decisions by local and state governmental agency decision-makers. This document focuses on impacts determined to be potentially significant in the Initial Study completed for this project (see Appendix A).

This DEIR has been prepared pursuant to the requirements of CEQA and the City of Industry's CEQA procedures. The City of Industry, as the lead agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on City technical personnel from various departments and review of all technical subconsultant reports.

Data for this DEIR is derived from on-site field observations, discussions with affected agencies, analysis of adopted plans and policies, review of available studies, reports, data and similar literature, and specialized environmental assessments (air quality, cultural resources, hazards and hazardous materials, noise, and transportation and traffic).

1.2 ENVIRONMENTAL PROCEDURES

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. CEQA established six main objectives for the EIR process:

1. Disclose to decision-makers and the public the significant environmental effects of proposed activities.
2. Identify ways to avoid or reduce environmental damage.
3. Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant environmental effects.
5. Foster interagency coordination in the review of projects.
6. Enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines. It is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Before approving a proposed project, the lead agency must consider the information in the EIR, determine whether the EIR was prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and adopt a statement of overriding considerations if significant impacts cannot be avoided.

1.2.1 EIR Format

This DEIR contains the following chapters:

Chapter 1. Executive Summary: Summarizes the background and description of the proposed project, the format of this DEIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the project.

Chapter 2. Introduction: Describes the purpose of this DEIR, background on the project, the Notice of Preparation, the use of incorporation by reference, and the Final EIR certification process.

Chapter 3. Project Description: Describes the project in detail, including its objectives, its area and location, approvals anticipated to be required as part of the project, necessary environmental clearances, and the intended uses of this DEIR.

Chapter 4. Environmental Setting: Describes the physical environmental conditions in the vicinity of the project as they existed at the time the Notice of Preparation was published, from local and regional perspectives. These provide the baseline physical conditions from which the lead agency determines the significance of the project's environmental impacts.

Chapter 5. Environmental Analysis: Each environmental topic is analyzed in a separate section that discusses the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the relevant regulatory framework; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; the mitigation measures for the proposed project; the level of significance after mitigation is incorporated; and the potential cumulative impacts of the proposed project and other existing, approved, and proposed development in the area.

Chapter 6. Significant Unavoidable Adverse Impacts: Describes the significant unavoidable adverse impacts of the proposed project.

Chapter 7. Alternatives to the Proposed Project: Describes the alternatives and compares their impacts to the impacts of the proposed project.

Chapter 8. Impacts Found Not to Be Significant: Briefly describes the potential impacts of the project that were determined not to be significant by the Initial Study and were therefore not discussed in detail in this DEIR.

Chapter 9. Significant Irreversible Changes Due to the Proposed Project: Describes the significant irreversible environmental changes associated with the project.

Chapter 10. Growth-Inducing Impacts of the Project: Describes the ways in which the proposed project would cause increases in employment or population that could result in new physical or environmental impacts.

Chapter 11. Qualifications of Persons Preparing EIR: Lists the people who prepared this DEIR for the proposed project.

Appendices: The appendices for this document (in PDF format on a CD attached to the front cover) comprise these supporting documents:

- Appendix A: Notice of Preparation/Initial Study
- Appendix B: Response to Notice of Preparation
- Appendix C: Air Quality/GHG Data
- Appendix D: Health Risk Assessment
- Appendix E: Cultural Resources Data
- Appendix F: Phase I Environmental Site Assessment
- Appendix G: Noise Data
- Appendix H: Traffic Impact Study
- Appendix I: Energy and Fuel Consumption

1.2.2 Type and Purpose of This DEIR

This DEIR has been prepared as a project EIR, as defined in Section 15161 of the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3). This type of EIR examines the environmental impacts of a specific development project and should focus primarily on the changes in the environment that would result from the development project. The DEIR examines all phases of the project including planning, construction, and operation.

1.3 PROJECT LOCATION

The project site is in the City of Industry in the San Gabriel Valley in Los Angeles County, California. The City of Industry extends approximately 14 miles east–west across the southern San Gabriel Valley (see Figure 3-1, Regional Location). The San Gabriel Valley extends east–west from near central Los Angeles on the west to the eastern Los Angeles County boundary, bounded to the north by the San Gabriel Mountains and to the south by the Puente Hills. The project site is on the northwest side of the City of Industry. Regional access to the site is from the Pomona Freeway (State Route [SR] 60) via the Azusa Avenue interchange.

The project site is on the southeast corner of Azusa Avenue and Chestnut Street (see Figure 3-2, Local Vicinity). The potential assigned addresses of the project site are 888 and 880 Azusa Avenue, 17300 Chestnut Street, 890 Curl Court, and 850 New Street. The site is 28.9 acres and consists of portions of Los Angeles County Tax Assessor's Parcel Numbers (APN) 8264-024-909, 8264-025-903, -904, -908, -911, -914, -915, -917, and -918.

1.4 PROJECT SUMMARY

The proposed project would subdivide the 28.9-acre site into five parcels and develop each parcel with a concrete tilt-up warehouse/office building. Approximately 509,697 square feet will be developed for warehouse use, and the remaining 104,900 square feet will be developed for office use. The office portion of the site will be used primarily for the display of goods rather than traditional office space. The project site contains no above-grade structures, with the exception of a billboard at the corner of Railroad Street and Azusa Avenue, and is covered with miscellaneous road base and cement paved areas (see Figure 3-3, Aerial Photograph). The project would not involve the demolition of any existing structures. The proposed buildings are identified as A through E, with a total combined building area of 614,597 square feet (see Figure 3-4, Proposed Site Plan). Table 3-1, Building and Site Characteristics Summary, provides a summary of building and site characteristics for the five warehouse buildings. The project site would be accessed from all street fronts: Chestnut Street, a public street off Virgil Waters Way, which is a public street off of Azusa Avenue; Railroad Street; and Curl Court off Railroad Street. The warehouse buildings would be a maximum of 50 feet tall. The buildings are intended for industrial warehouse/office use, and the prospective occupants are currently unknown.

1.5 SUMMARY OF PROJECT ALTERNATIVES

The following two alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the project but which may avoid or substantially lessen any of the significant effects of the project.

- No Project Alternative
- Reduced Intensity Alternative

1.6 NO PROJECT ALTERNATIVE

This alternative, which is required by CEQA, assumes that the development does not occur and the project site remains vacant.

Impacts related to cultural resources, hazardous emissions, noise, population and housing, public services, transportation and traffic, and utilities and service systems would be less than with the proposed project, and impacts related to land use would be greater than those of the proposed project. This alternative would have environmentally neutral impacts related to aesthetics, agricultural and forest resources, biological resources, site contamination, and hydrology and water quality. However, this alternative would not meet any of the project objectives.

1.7 REDUCED INTENSITY ALTERNATIVE

This alternative would reduce the overall development density proposed by the project by 20 percent, thereby providing approximately 407,758 square feet of warehouse building space and approximately 86,320 square feet of office space. The intent of this alternative is to reduce the project's air quality impacts, which were determined as significant and unavoidable.

This alternative would have superior environmental impacts related to air quality, GHG emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and utilities

and service systems. However, the significant and unavoidable impacts related to air quality and GHG emissions could not be avoided. Impacts related to aesthetics, agricultural and forestry services, biological resources, cultural resources, land use and planning, and population and housing would have similar impacts to the proposed project. This alternative would meet some of the project objectives identified, but not to the extent of the proposed project.

1.8 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the lead agency as to:

1. Whether this DEIR adequately describes the environmental impacts of the project.
2. Whether the benefits of the project override the environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the project besides the mitigation measures identified in the DEIR.
6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

1.9 AREAS OF CONTROVERSY

In accordance with CEQA Guidelines Section 15123(b)(2), the DEIR must identify areas of controversy known to the lead agency, including issues raised by agencies and the public. No areas of controversy concerning the proposed project have been identified. This DEIR has taken into consideration the comments received from the various agencies and jurisdictions in response to the Notice of Preparation (NOP). Written comments received during the NOP period, which extended from October 23, 2015, to November 23, 2015, are contained in Appendix B of this DEIR. Written comments received during the NOP period included issues regarding potential cultural resources impact, which are addressed in Section 5.2, Cultural Resources, of this DEIR.

1.10 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-1 summarizes the conclusions of the environmental analysis contained in this DEIR. Impacts are identified as significant or less than significant, and mitigation measures are identified for all significant impacts. The level of significance after imposing mitigation measures is also presented.

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.1 AIR QUALITY			
Impact 5.1-1: The proposed project would generate a substantial increase in emissions and could be inconsistent with the applicable air quality management plan.	Potentially Significant	See Mitigation Measures AQ-2 through AQ-6.	Significant and Unavoidable
Impact 5.1-2: Construction activities associated with the proposed project would generate short-term emissions that exceed the South Coast Air Quality Management District's regional construction threshold for volatile organic compounds.	Potentially Significant	AQ-1 During construction, the construction contractor shall require the use of interior paint with 0 grams per liter (g/L) of volatile organic compounds (VOC) (i.e., zero VOC paint) and exterior paint with 50 g/L VOC content. Paints that emit less than the low-VOC limits of South Coast Air Quality Management District (SCAQMD) Rule 1113 are known as "super-compliant paints." A list of super-compliant VOC coating manufacturers is available on the SCAQMD's website (hhttp://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings).	Less Than Significant
Impact 5.1-3: Long-term criteria air pollutant emissions associated with the proposed project would exceed the South Coast Air Quality Management District's regional operational significance threshold for NOx.	Potentially Significant	AQ-2 Only electric-powered or alternative-fueled (e.g., propane, liquefied natural gas, compressed natural gas) off-road equipment, such as forklifts, shall be utilized for daily warehouse operations. AQ-3 The project developer/applicant shall implement the following measures that are identified as voluntary measures in the 2013 California Green Building Standards Code (CALGreen Code), Appendix A5, Nonresidential Voluntary Measures. 1. The parking lot shall be marked in compliance with CALGreen Code Section A5.106.5.1, which requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles. The designated parking stalls are required to be painted "Clean Air Vehicle" per CALGreen Code Table A5.106.5.1.2. 2. Changing/shower facilities shall be provided as specified in CALGreen Code Section A5.106.4.3. 3. Infrastructure in the parking lots shall be installed to support future electric vehicle charging. Installation shall be consistent with CALGreen Section A5.106.5.3. AQ-4 Legible, durable, weatherproof 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 instructions for truck drivers to shut off engines when not in use, instructions for drivers of diesel trucks to restrict idling to no more than 3 minutes, and telephone numbers for the building facilities manager and CARB to report violations.	Significant and Unavoidable

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		AQ-5 Signage shall be provided on-site to alert all truck drivers that operation of transport refrigeration units (TRUs) shall be limited to those powered by zero-emission sources and units connected to a local electric power source. AQ-6 Tenants shall be notified about the availability of alternatively fueled cargo handling equipment, grant programs for diesel fueled vehicle engine retrofit and/or replacement, designated truck parking locations in the City of Industry, access to alternative fueling stations proximate to the site that supply compressed natural gas, and the US Environmental Protection Agency's SmartWay program.	
Impact 5.1-4: The proposed project would expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	AQ-7 During construction, a maximum of 5 acres of land shall be graded over the course of a single day. The grading of more than 5 acres in a single day shall be prohibited. See also Mitigation Measures AQ-2 through AQ-6.	Less Than Significant
5.2 CULTURAL RESOURCES			
Impact 5.2-1: Development of the project would not impact an identified historic resource.	Less Than Significant	No mitigation measures are required.	Not applicable
Impact 5.2-2: Development of the project site has the potential to result in adverse archaeological resources impacts.	Potentially Significant	CUL-1 Prior to the issuance of the first grading permit and/or action that would permit disturbance to the project site, the project developer/applicant shall retain a qualified archaeological monitor to observe grading activities and to salvage and catalogue archaeological resources, including tribal resources, as necessary. The qualified archaeological monitor shall be retained in consultation with the Gabrieleño tribal group. The qualified archaeological monitor and the qualified paleontological monitor required under Mitigation Measure CUL-2 can be the same person. The qualified monitor shall be invited to be present at the pregrading conference; shall establish procedures for archaeological resource surveillance; and shall establish, in cooperation with the construction contractor, procedures for temporary halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts, as appropriate. Should archaeological resources, including tribal resources, be found during ground-disturbing activities, the qualified monitor shall first determine whether the resource is a unique archaeological resource pursuant to Section 21083.2(g) of the California Public Resources Code (PRC) or a " historical resource" pursuant to Section 15064.5(a) of the State CEQA Guidelines (14 California Code of Regulations) and consult with a representative of the Gabrieleño Band of Mission Indians-Kizh Nation and the City of Industry. Once the determination is made pursuant to CEQA	Less Than Significant

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Guidelines Section 21083.2, the appropriate actions shall be taken in appropriate sections of the regulations to ensure impacts are reduced to a less than significant level. During the monitoring in the field, the City of Industry Director of Development Services and Administration shall have the authority to resolve any disputes between the developer/contractor and the monitor.	
Impact 5.2-3: The proposed project could impact subsurface paleontological resources or a unique geologic feature.	Potentially Significant	CUL-2 Prior to the beginning of ground disturbances, the project applicant/developer shall retain a qualified paleontologist to monitor ground-disturbing activities that occur in older Quaternary deposits during ground excavation. Before ground-disturbing activities begin, a qualified paleontologist shall prepare a monitoring plan, specifying the frequency, duration, and methods of monitoring. The qualified paleontological monitor and the qualified archaeological monitor required under Mitigation Measure CUL-1 can be the same person. Sediment samples shall be collected in older Quaternary deposits and processed to determine the small-fossil potential in the project site, and any fossils recovered during mitigation shall be deposited in an accredited and permanent scientific institution. During field monitoring, the City of Industry Director of Development Services and Administration shall have the authority to resolve any disputes between the developer/contractor and the monitor.	Less Than Significant
Impact 5.2-4: Development of the project site has the potential to result in adverse tribal cultural resources impacts.	Potentially Significant	See Mitigation Measure CUL-1.	Less Than Significant
5.3 GREENHOUSE GAS EMISSIONS			
Impact 5.3-1: Development of the proposed project would result in a substantial increase of GHG emissions that would exceed the South Coast Air Quality Management District's significance criteria.	Potentially Significant	GHG-1 Electricity for the buildings shall be offset from installation of solar panels installed on the office component of the building structure. GHG-2 Landscape plans shall incorporate trees near the facades of the buildings in locations where tree placement would assist with passive solar heating and cooling of the structures, while also avoiding interference with vehicle movements and building operations. Additionally, Mitigation Measures AQ-2 through AQ-6 applied for Impact 5.1-3 from Chapter 5.1, Air Quality, would be applicable.	Significant and Unavoidable.
Impact 5.3-2: The proposed project would not conflict with SCAG's 2012-2035 RTP/SCS or CARB's Scoping Plan.	Less Than Significant	No mitigation measures are required.	Not Applicable

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.4 HAZARDS AND HAZARDOUS MATERIALS			
Impact 5.4-1: The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less Than Significant	No mitigation measures are required.	Not Applicable
Impact 5.4-2: The proposed 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.	Potentially Significant	HAZ-1 Prior to issuance of a grading permit, the project developer/applicant shall collect soil and soil vapor samples to be analyzed for volatile organic compounds (VOCs) in the areas of the removed oil waste underground storage tank (UST) at 942 S. Azusa Avenue as identified in the Phase I Environmental Site Assessment prepared by Stantec dated September 26, 2014. If the detected sample data result exceeds the applicable threshold level, further removal or management action shall be performed consistent with all applicable state and local rules, regulations, and laws. A cleanup would not be considered complete until confirmatory samples of soil reveal levels of contamination below the standards established by the oversight agency. The sample data and result showing levels of contamination below the significant threshold shall be submitted to Los Angeles County Department of Public Works to obtain regulatory closure for the UST. HAZ-2 Prior to issuance of a grading permit, the project developer/applicant shall collect soil and soil vapor samples and test as identified by the Phase I Environmental Site Assessment prepared by Stantec dated September 26, 2014, and listed below. If any of the detected sample data results exceed the applicable threshold level, further removal or management action shall be performed consistent with all applicable state and local rules, regulations, and laws. A cleanup would not be considered complete until confirmatory samples of soil reveal levels of contamination below the standards established by the oversight agency. The sample data and result showing levels of contamination below the significant threshold shall be submitted to Los Angeles County Department of Public Works and the Los Angeles Regional Water Quality Control Board. • In the areas of the removed two diesel underground storage tanks (USTs) at 942 S. Azusa Avenue for total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs). • In the areas of the two historic hazardous storage areas, a clarifier, and several historical spray booths at 17300 Chestnut Street for VOCs. • In the areas of historical machine and maintenance shops at 17300 Chestnut Street for TPH, VOCs, and metals.	Less Than Significant

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• From the surface staining area southeast corner of the project site to determine if this staining has impacted the subsurface of the project site. HAZ-3 The project developer/applicant shall conduct a vapor survey in accordance with the vapor encroachment analysis required by ASTM 13 standards in the San Gabriel Valley (Area 4) National Priority List groundwater plume area to determine if impacts from tetrachloroethylene (PCE) and trichloroethylene (TCE) exist on-site. If the detected sample data result exceeds the applicable threshold level, further removal or management action shall be performed consistent with all applicable state and local rules, regulations, and laws.	
Impact 5.4-3: The proposed project could result in significant adverse impacts to nearby sensitive receptors	Potentially Significant	Mitigation Measures AQ-2 through AQ-6 applied for Impact 5.1-3 from Chapter 5.1, Air Quality, would be applicable.	Less Than Significant
Impact 5.4-4: The project site includes historical hazardous materials uses that require further evaluation and/or removal.	Potentially Significant	Mitigation Measures HAZ-1 through HAZ-3 applied for Impact 5.4-2 from Chapter 5.4, Hazards and Hazardous Materials, would be applicable.	Less Than Significant
5.5 NOISE			
Impact 5.5-1: Construction activities would not result in significant temporary noise increases in the vicinity of the project site	Less Than Significant	No mitigation measures are required.	Not Applicable
Impact 5.5-2: The proposed project would expose sensitive uses to strong levels of groundborne vibration.	Potentially Significant	N-1 During construction, vibratory rollers shall not be operated within 30 feet of off-site buildings.	
Impact 5.5-3: Buildout of the proposed project would not cause a substantial noise increase related to traffic on local roadways.	Less Than Significant	No mitigation measures are required.	Not Applicable
Impact 5.5-4: Noise-sensitive uses would not be exposed to elevated noise levels from stationary sources.	Less Than Significant	No mitigation measures are required.	Not Applicable

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.6 TRANSPORTATION/TRAFFIC			
Impact 5.6-1: Project-related trip generation would impact levels of service for the existing area roadway system.	Potentially Significant	TRANS-1 Prior to the issuance of the first building permit, the project applicant/developer shall participate in the costs for traffic improvements to the Azusa Avenue and Gale Avenue to meet the City of Industry level of service standards. The project applicant/developer shall be conditioned to contribute a "fair share" of total costs for the roadway improvements identified below. The project's fair share calculation has been prepared and is included in Table 11, Project Fair-Share Intersection Contribution, of the traffic impact study prepared by RK Engineering Group dated August 2015 (Appendix H of this DEIR) for informational purposes. The final fair share percentage and payment amount shall be determined and approved by the City of Industry. • Convert westbound through lane to a right turn lane. • Install westbound right turn overlap phase. • Restripe southbound approach to provide a shared through-right, three through lanes, and two left turn lanes. • Due to southbound approach restriping, perform traffic signal modification to remove the southbound right turn overlap phase. • Restripe southbound Azusa Avenue south of Gale Avenue to accommodate four southbound lanes.	Less Than Significant
Impact 5.6-2: The proposed project would not conflict with the Los Angeles County Congestion Management Program.	Less Than Significant	No mitigation measures are necessary.	Not Applicable

This page intentionally left blank.

2 Introduction

2. Introduction

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. This Draft Environmental Impact Report (DEIR) has been prepared to satisfy CEQA and the CEQA Guidelines. The environmental impact report (DEIR) is the public document designed to provide decision-makers and the public with an analysis of the environmental effects of the Chestnut Street Warehouse Project (proposed project), to indicate possible ways to reduce or avoid environmental damage, and to identify alternatives to the project. The DEIR must also disclose significant environmental impacts that cannot be avoided, growth-inducing impacts, effects not found to be significant, and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

The lead agency means the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment (CEQA Section 21067). The City of Industry (City) has the principal responsibility for approval of the Proposed Warehouse Building Project, Development Plan 15-12, and Tentative Parcel Map 348 (proposed project). For this reason, the City of Industry is the CEQA lead agency for this project.

One intent of the DEIR is to provide sufficient information on the potential environmental impacts of the proposed project to allow the City to make an informed decision regarding approval of the project. Specific discretionary actions to be reviewed by the City are described in Section 3.4, Intended Uses of the EIR, in Chapter 3, Project Description.

This DEIR has been prepared in accordance with requirements of the:

- California Environmental Quality Act of 1970, as amended (Public Resources Code Section 21000 et seq.)
- State Guidelines for the Implementation of the CEQA (CEQA Guidelines), as amended (California Code of Regulations Section 15000 et seq.)
- City of Industry CEQA Guidelines

The overall purpose of this DEIR is to inform the lead agency, responsible agencies, decision-makers, and the general public about the environmental effects of the development and operation of the proposed project. This DEIR addresses effects that may be significant and adverse, evaluates alternatives to the project, and identifies mitigation measures to reduce or avoid adverse effects.

2.2 NOTICE OF PREPARATION AND INITIAL STUDY

The City determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) and Initial Study on October 23, 2015 (see Appendix A). Comments received during the Initial Study's public

review period, from October 23, 2015, to November 23, 2015, may be found in Appendix B. One comment letter from the California Department of Transportation (Caltrans) regarding the extent of the traffic study for the proposed project was received during the NOP comment period. In addition to comments received on the NOP, the Gabrieleño Band of Mission Indians-Kizh Nation and the Soboba Band of Luiseño Indians were contacted per the requirements of Assembly Bill (AB) 52. Refer to Chapter 5.2, Cultural Resources, for details of the AB 52 consultation.

The NOP process helps determine the scope of the environmental issues to be addressed in the DEIR. Based on this process and the Initial Study for the project, certain environmental categories were identified as having the potential to result in significant impacts. Issues identified as potentially significant in the Initial Study are addressed in this DEIR, but issues identified as less than significant or no impact are not. Refer to the Initial Study in Appendix A for discussion of how these initial determinations were made.

2.3 SCOPE OF THIS DEIR

The scope of the DEIR was determined based on the City's Initial Study, comments received in response to the NOP, and comments received at the scoping meeting conducted by the City on June 2, 2016. Pursuant to Sections 15126.2 and 15126.4 of the CEQA Guidelines, the DEIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to levels of insignificance where feasible.

The information in Chapter 3, Project Description, establishes the basis for analyzing future project-related environmental impacts.

2.3.1 Impacts Considered Less Than Significant

During preparation of the Initial Study, the City determined that 11 environmental impact categories would not be significantly affected by or did not affect the proposed project. These categories, which are not discussed in detail in this DEIR, are:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

2.3.2 Potentially Significant Adverse Impacts

This DEIR evaluates the following six environmental factors, for which the Initial Study identified that the proposed project could result in potentially significant impacts:

- Air Quality
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Noise
- Transportation and Traffic

2.3.3 Unavoidable Significant Adverse Impacts

This DEIR identifies significant and unavoidable adverse impacts, as defined by CEQA, that would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. The City must prepare a statement of overriding considerations before it can approve the project, attesting that the decision-making body has balanced the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits outweigh the adverse effects, and therefore the adverse effects are considered acceptable. The impacts that were found in the DEIR to be significant and unavoidable concern the following topics:

- Air Quality
- Greenhouse Gas Emissions

2.4 INCORPORATION BY REFERENCE

Some documents are incorporated by reference into this DEIR, consistent with Section 15150 of the CEQA Guidelines. These documents are available for review upon request at the City of Industry Planning Department, 15625 East Stafford Street, Suite 100, City of Industry, CA 91774-0366.

- City of Industry 2014 General Plan, adopted June 12, 2014
- City of Industry General Plan Update EIR (State Clearinghouse No. 2011031090), February 2014
- City of Industry Municipal Code

2.5 FINAL EIR CERTIFICATION

This DEIR will be circulated for public review for 45 days. During this review period, interested agencies and members of the public are invited to provide written comments on the DEIR to the City address shown below. Upon completion of the 45-day review period, the City will review all written comments received and prepare

written responses for each. A Final EIR (FEIR) will incorporate the received comments, responses to the comments, and any changes to the DEIR that result from comments. The FEIR will be presented to the City of Industry City Council for potential certification as the environmental document for the project. All persons who comment on the DEIR will be notified of the availability of the FEIR and the date of the public hearing before the City.

The DEIR is available to the general public for review on the City's website at http://www.cityofindustry.org and at the following location:

- City of Industry Planning Department, 15625 East Stafford Street, Suite 100, Industry, CA 91744-0366

2.6 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that an agency adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code Section 21081 or adopted a negative declaration pursuant to Section 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or negative declaration.

The Mitigation Monitoring Program for the proposed project will be completed as part of the Final EIR, prior to consideration of the project by the City of Industry City Council.

3 Project Description

3. Project Description

3.1 PROJECT LOCATION

The project site is in the City of Industry in the San Gabriel Valley in Los Angeles County, California. The City of Industry extends approximately 14 miles east–west across the southern San Gabriel Valley (see Figure 3-1, Regional Location). The San Gabriel Valley extends east–west from near central Los Angeles on the west to the eastern Los Angeles County boundary and is bounded to the north by the San Gabriel Mountains and to the south by the Puente Hills. The project site is on the northwest side of the City of Industry. Land use patterns reflect the nature of the city, with approximately 82 percent of the city devoted to industrial, commercial, and commercial recreational uses. Regional access to the site is from the Pomona Freeway (State Route [SR] 60) via the Azusa Avenue interchange.

The project site is approximately 28.9 acres of vacant land on the southeast corner of Azusa Avenue and Chestnut Street (see Figure 3-2, Local Vicinity). The potential assigned addresses of the project site are 888 and 880 Azusa Avenue, 17300 Chestnut Street, 890 Curl Court, and 850 New Street. The site consists of portions of Los Angeles County Tax Assessor Parcel Numbers (APN) 8264-024-909, 8264-025-903, -904, -908, -911, -914, -915, -917, and -918. The project site contains no above-grade structures, with the exception of a billboard at the corner of Railroad Street and Azusa Avenue, and is covered with miscellaneous road base and cement paved areas (see Figure 3-3, Aerial Photograph). Although the project site is currently vacant and does not contain any above-grade structures, past manufacturing uses on-site involved various hazardous materials, including removed underground storage tanks. There are a few trees lining the perimeter of the project site as well as miscellaneous ground cover throughout. An existing aggregate stockpile is in the west-central portion of the site. The existing zoning for the project site is Industrial (I) with a small portion of the site at the southwest corner zoned Commercial (C). The General Plan land use designation is Employment. The proposed project would be permitted in the Industrial and Commercial zones by right.

3.2 STATEMENT OF OBJECTIVES

The objectives sought by the proposed project are:

1. Provide for development of the site consistent with the City's General Plan, in particular with these objectives:

    a. Achieve a sustained economic viability that provides a tax base supportive of the city's growth potential, maintains fiscal viability, and funds capital improvement programs that serve present and future businesses.

    b. Achieve a professional appearance in the city such that additional investment is stimulated by providing a quality level of services, safety, security, infrastructure, and design.

    c. Provide prudent ownership and timely disposition of strategic properties to achieve the City's economic development and revitalization goals.

3.3 PROJECT CHARACTERISTICS

The term *project*, as defined by the CEQA Guidelines, means:

> ... the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700… (3) An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies. (14 California Code of Regulations Section 15378[a] and [c])

3.3.1 Description of the Project

The proposed project will develop five buildings, identified as A–E, totaling 614,597 square feet of building area, with 183,058 square feet of landscaped area. Approximately 509,697 square feet will be developed for warehouse use, and the remaining 104,900 square feet will be developed for office use. The office portion of the site will be used primarily for the display of goods rather than traditional office space. The proposed project would subdivide the 28.9-acre site into five parcels and develop each parcel with a concrete tilt-up warehouse/office building (see Figure 3-4, Proposed Site Plan). The buildings would occupy approximately 49 percent of the 28.9-acre site. The City's Zoning Code requires 308 parking spaces; however, a total of 850 parking space for passenger vehicles would be developed along the perimeter of the proposed buildings, as well as 54 bicycle parking spaces. Table 3-1, Building and Site Characteristics Summary, summarizes building and site characteristics for the five buildings.

The warehouse buildings would be a maximum of 50 feet tall, which is less than the 150-foot maximum allowed by the City of Industry's Zoning Code. Figures 3-5a and 3-5b, Building Elevations, illustrate some of the building elevations that would be visible from Azusa Avenue, Virgil Waters Way, and Chestnut Street. At the time this EIR was prepared, the future tenant(s) of the proposed project's buildings is unknown. The buildings are designed to accommodate warehouse distribution, e-logistics, or fulfillment center uses. Uses such as industrial, manufacturing, and cold storage of food products are not anticipated on the project site. Upon completion, the proposed project would provide for approximately 997 employees.[1] A total of 71 docking bays would be provided as detailed in Table 3-1. Docking areas for each of the warehouse buildings would be secured by a combination of 8-foot-high metal tubular manually operated gates, 8-foot-high wrought-iron fence, 6-foot-high chain-link fence, and partial concrete tilt-up screen walls. These areas are labeled "Gate" in Figure 3-4.

Low points in each truck loading bay would have catch basins and sump pumps for stormwater collection and removal. In accordance with the City's Zoning Code, trash enclosures containing a trash bin and a recycling bin would be provided near the loading docks of each building, and pad-mounted electrical transformers would be installed to service each building.

Access and Circulation

The project will have two full access point to Virgil Waters Way, one full access point to Chestnut Street, one signalized full access point to Azusa Avenue, one right-in/right-out only access point to Railroad Street, and

[1] Employment is based on the estimated number of employees per square feet of warehouse space and general office space according to the US Green Building Council (2008).

one full access point to Railroad Street. Passenger vehicles and heavy trucks will be able to access the site via all project access points, and the driveways would measure between 26 to 45 feet wide. Internal circulation would be controlled by stop signs, one-lane directional streets, and controlled turning lanes.

Construction

The project would not involve the demolition of any existing structures, except the billboard. Concrete pavement, aggregate base and piles, and trees and ground cover would be removed as part of site grading activities. It is anticipated that these materials would be transported off-site and recycled. Site preparation and grading activities would last for approximately six weeks. All soils would be balanced on-site and would be excavated to a maximum depth of 4 feet below the building pads. Following grading activities, construction of the buildings, site paving, and architectural coating would occur. Construction activities are anticipated to begin in early winter 2016 and last for approximately 11 months.

Table 3-1 Building and Site Characteristics Summary

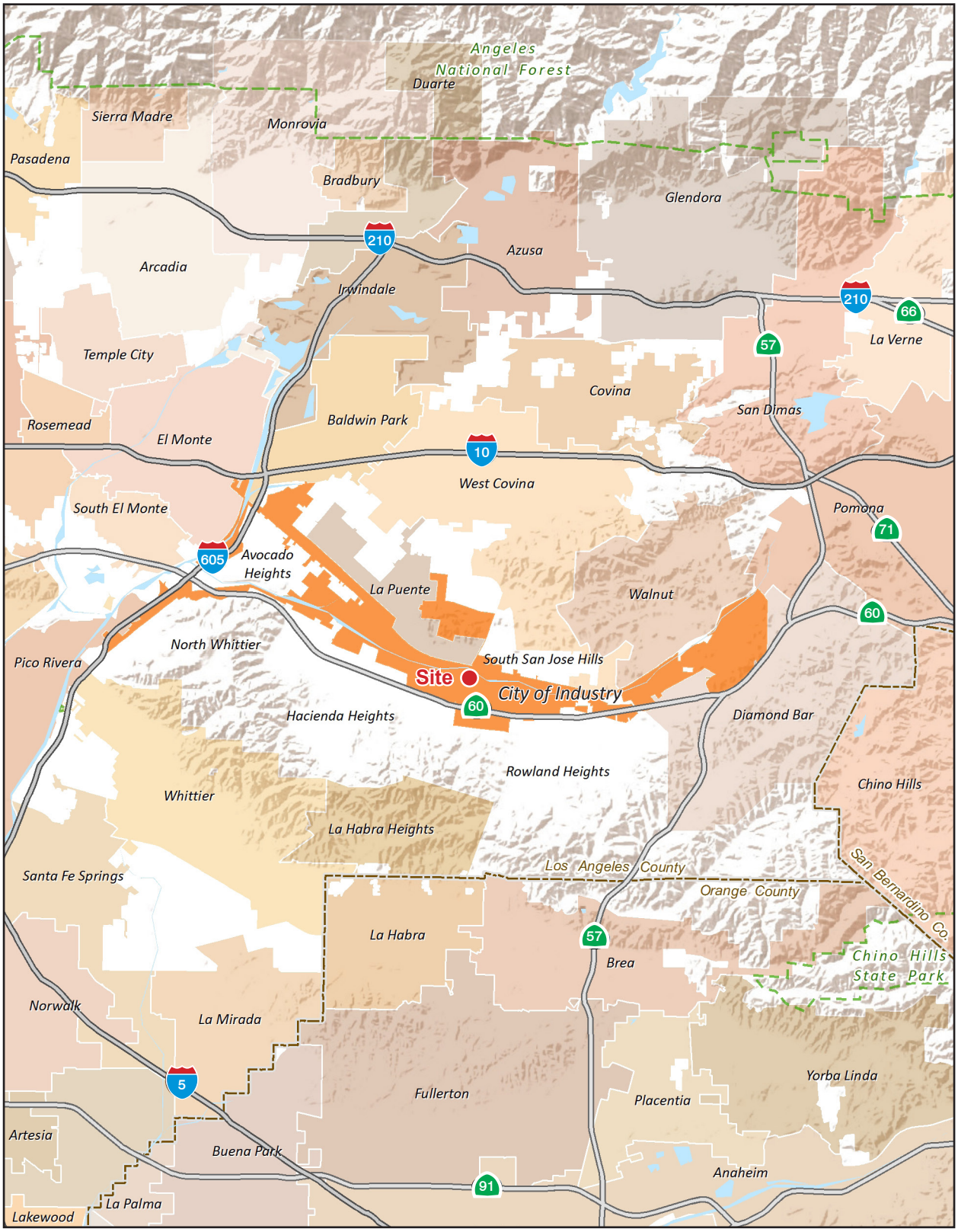
Building	Bldg A (Parcel 1)	Bldg B (Parcel 2)	Bldg C (Parcel 3)	Bldg D (Parcel 4)	Bldg E (Parcel 5)	Total
Warehouse	127,100 SF	176,716 SF	104,227 SF	62,271 SF	39,383 SF	509,697 SF
Office Space	28,500 SF	47,400 SF	11,000 SF	10,000 SF	8,000 SF	104,900 SF
Total Building Area	155,600 SF	224,116 SF	115,227 SF	72,271 SF	47,383 SF	614,597 SF
Parcel Acres	7.17	10.28	5.41	3.36	2.6	28.9
Max Building Height (ft.)	38’	50’	36’	34’	34’	n/a
Number of Dock Doors	18	27	14	7	5	n/a
Tilt-Up Screen Wall Height	12’	8’	8’	—	6’	n/a
Parking (spaces)	206	279	170	114	81	850
Bicycle Parking (spaces)	18	9	9	9	9	54
Landscaped Area (sq. ft.)	44,772	64,462	28,374	17,742	27,708	183,058

3.4 INTENDED USES OF THE EIR

This DEIR is a project environmental impact report that examines the environmental impacts of the proposed project. This DEIR also addresses various actions by the City and others to adopt and implement the proposed project. It is the intent of this DEIR to evaluate the environmental impacts of the proposed project, thereby enabling the City, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are:

Lead Agency	Action
City of Industry City Council	• Approve Development Plan • Approve Tentative Parcel Map • Certify EIR • Adopt mitigation monitoring program
City of Industry Planning and Engineering Departments	• Approve street improvement plans • Approve development (site) plans • Approve grading and drainage plans • Approve ancillary permits and plans • Review and approve project-specific water quality management plan for City compliance with MS4 municipal stormwater permitting • Other approvals required to implement the approved project
Responsible Agencies	**Action**
County of Los Angeles	• Approve building mechanical, electrical, plumbing, fire, and grading plans (building pads)
Los Angeles Regional Water Quality Control Board	• Process Notice of Intent and issue a National Pollutant Discharge Elimination System permit for construction activities and/or stormwater pollution prevention plan(s) • Review and approve project-specific water quality management plan for City compliance with MS4 municipal stormwater permitting
Los Angeles County Sanitation District No. 21	• Approve sewer conveyance system
South Coast Air Quality Management District	• Issue construction-related air quality permits
Rowland Water District	• Approve water conveyance system

T:_CS\Work\Industry, City of\Chestnut EIR\Figures



Note: Unincorporated county areas shown in white.

Source: RK Engineering Group, Inc.; ESRI, 2015

N

0 1.5 3
MILES

FIGURE 3-1
Regional Location

Michael Baker
INTERNATIONAL

This page intentionally left blank.

T:_CS\Work\Industry, City of\Chestnut EIR\Figures

Project Site — City Boundary

Source: RK Engineering Group, Inc.; ESRI, 2015

0 500 1,000 FEET

FIGURE 3-2
Local Vicinity

Michael Baker INTERNATIONAL

This page intentionally left blank.

T:_CS\Work\Industry, City of\Chestnut EIR\Figures

Project Site

City Boundary

Source: RK Engineering Group, Inc.; Google Earth Pro, 2016

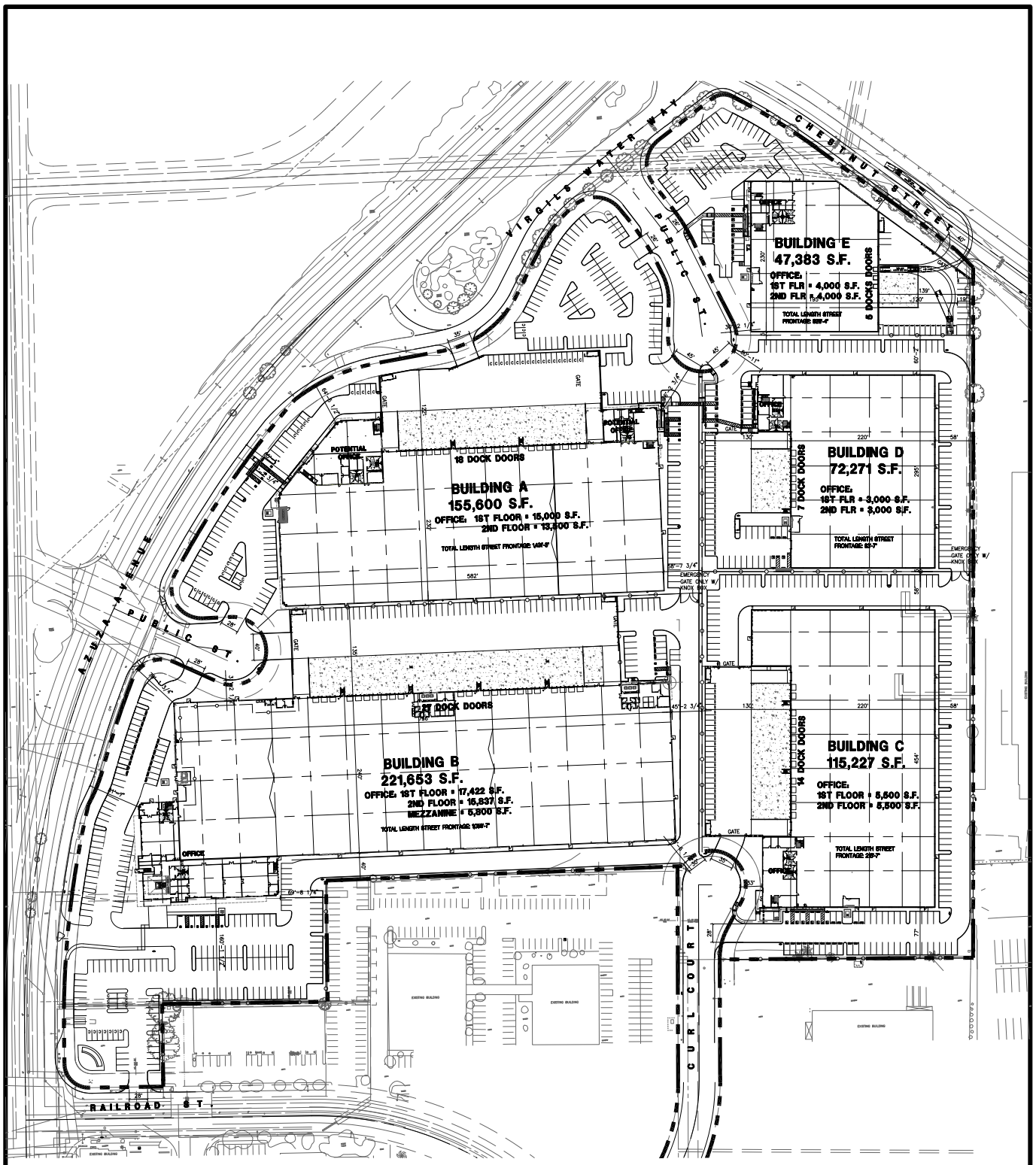
0 500 1,000
FEET

FIGURE 3-3
Aerial Photograph

Michael Baker
INTERNATIONAL

This page intentionally left blank.

T:_CS\Work\Industry, City of\Chestnut EIR\Figures



Source: HPA Architecture

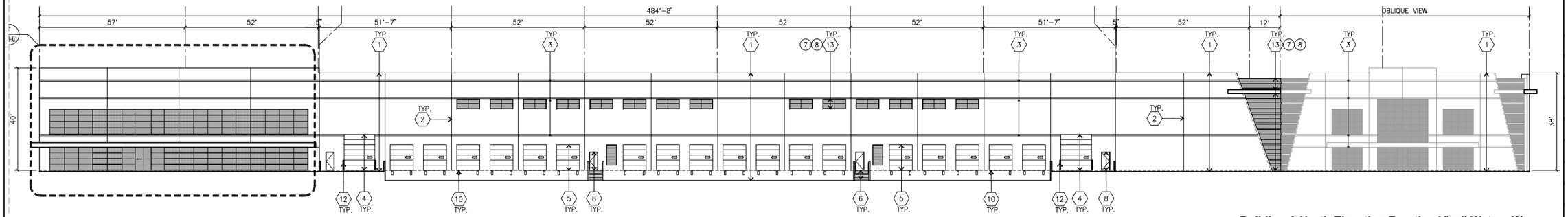
0 120 240
FEET

FIGURE 3-4
Proposed Site Plan

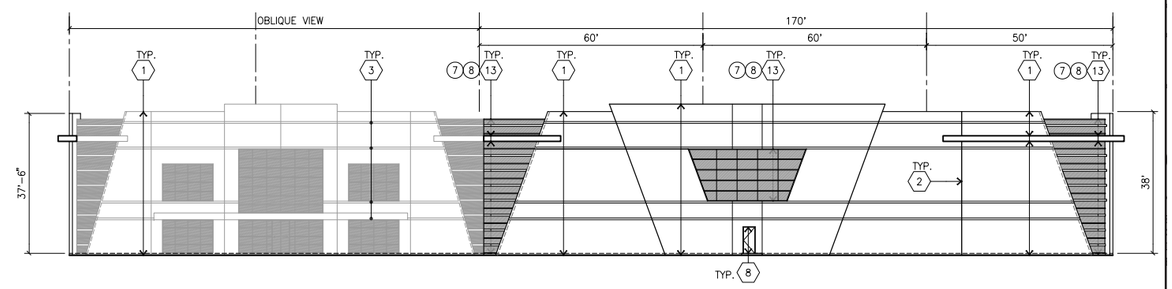
Michael Baker
INTERNATIONAL

This page intentionally left blank.

T:_CSI\Work\Industry, City of\Chestnut EIR\Figures



Building A North Elevation Fronting Virgil Waters Way



Building A West Elevation Fronting Azusa Ave

KEYNOTES - ELEVATIONS

1. CONCRETE TILT-UP PANEL(PAINTED).
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU.
5. OVERHEAD DOOR @ DOCK HIGH.
6. CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL.
7. KNOCK OUT PANEL
8. HOLLOW METAL DOORS.
9. NOT USED
10. DOCK BUMPER
11. NOT USED
12. CONC. FILLED STEEL BOLLARDS, SEE FLR. PLAN.
13. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING AT ALL DOORS, SIDELITES ADJACENT TO DOORS AND GLAZING WITH BOTTOMS LESS THAN 18" ABOVE FINISH FLOOR ELEVATION. DESIGN
14. TUBE STEEL OPEN CANOPY

COLOR SCHED. - ELEVATIONS

1	CONCRETE TILT-UP PANEL	PAINT BRAND SHERWIN WILLIAMS SW 7005 PURE WHITE
2	MULLIONS	PAINT BRAND CLEAR ANODIZED
3	GLAZING	COLOR MEDIUM PERFORMANCE BLUE REFLECTIVE GLAZING
9	METAL CANOPY	PAINT BRAND SHERWIN WILLIAMS SW301 MONORAIL SILVER (CLEARCOAT)

GLAZING LEGEND

- TEMPERED SPANDREL GLASS
- TEMPERED VISION GLASS
- TEMPERED VISION INSULATED GLASS PPG: VISTACOOL (2) PACIFICA + SOLARBAN SOLARBAN 60 (3) CLEAR U VALUE: 0.27, SHGC: 0.21 AND VLT: 26% 1" INSULATED GLASS WITH 1/2" AIRSPACE AND (2) 1/4" LITES.

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
C. T.O.P. EL.= TOP OF PARAPET ELEVATION.
D. F.F. = FINISH FLOOR ELEVATION.
E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
F. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
H. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
K. THE FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED-ON

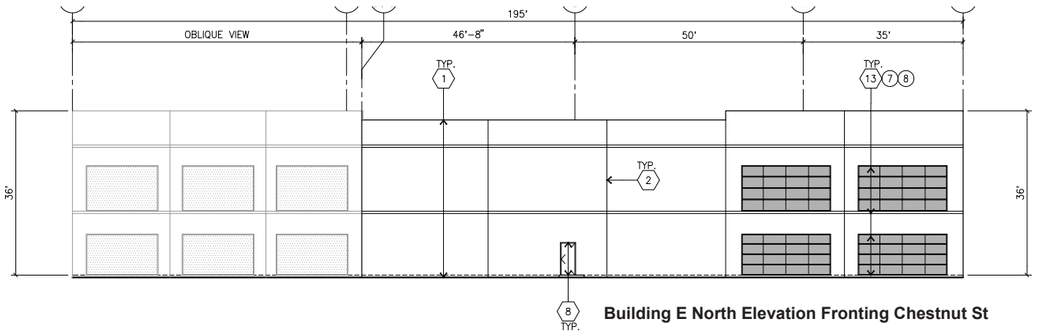
Source: HPA Architecture, 2015

FIGURE 3-5A
Building Elevations

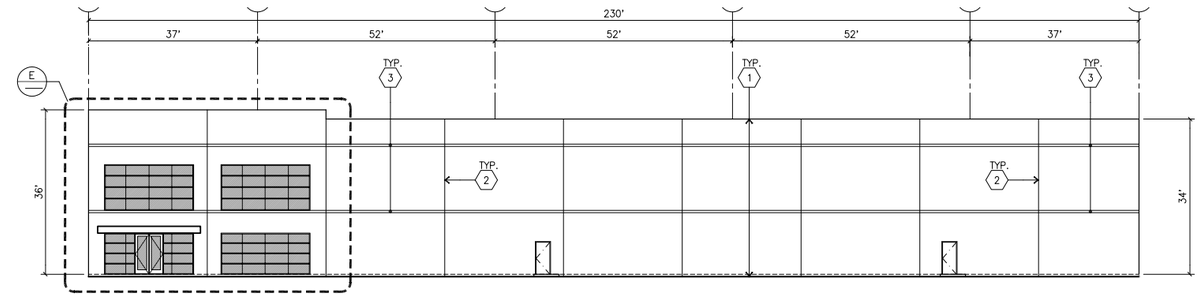
Michael Baker INTERNATIONAL

This page intentionally left blank.

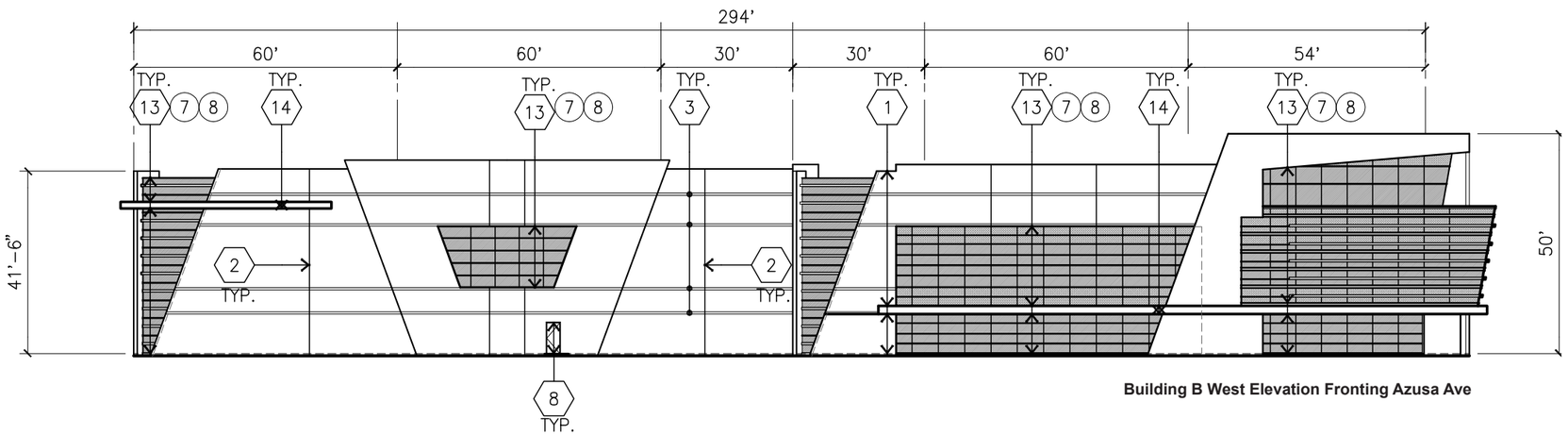
T:_CSI\Work\Industry, City of\Chestnut EIR\Figures



Building E North Elevation Fronting Chestnut St



Building E West Elevation Fronting Public St



Building B West Elevation Fronting Azusa Ave

KEYNOTES - ELEVATIONS

1. CONCRETE TILT-UP PANEL(PAINTED).
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU.
5. OVERHEAD DOOR @ DOCK HIGH.
6. CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL.
7. KNOCK OUT PANEL
8. HOLLOW METAL DOORS.
9. NOT USED
10. DOCK BUMPER
11. NOT USED
12. CONC. FILLED STEEL BOLLARDS, SEE FLR. PLAN.
13. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING AT ALL DOORS, SIDELITES ADJACENT TO DOORS AND GLAZING WITH BOTTOMS LESS THAN 18" ABOVE FINISH FLOOR ELEVATION. DESIGN
14. TUBE STEEL OPEN CANOPY

COLOR SCHED. - ELEVATIONS

1	CONCRETE TILT-UP PANEL	PAINT BRAND SHERWIN WILLIAMS SW 7005 PURE WHITE
2	MULLIONS	PAINT BRAND CLEAR ANODIZED
3	GLAZING	COLOR MEDIUM PERFORMANCE BLUE REFLECTIVE GLAZING
9	METAL CANOPY	PAINT BRAND SHERWIN WILLIAMS SW301 MONORAIL SILVER (CLEARCOAT)

GLAZING LEGEND

- TEMPERED SPANDREL GLASS
- TEMPERED VISION GLASS
- TEMPERED VISION INSULATED GLASS PPG: VISTACOOL (2) PACIFICA + SOLARBAN SOLARBAN 60 (3) CLEAR U VALUE: 0.27, SHGC: 0.21 AND VLT: 26% 1" INSULATED GLASS WITH 1/2" AIRSPACE AND (2) 1/4" LITES.

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
C. T.O.P. EL.= TOP OF PARAPET ELEVATION.
D. F.F. = FINISH FLOOR ELEVATION.
E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
F. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
H. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
K. THE FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED-ON

Source: HPA Architecture, 2015

FIGURE 3-5B
Building Elevations

Michael Baker INTERNATIONAL

This page intentionally left blank.

3.5 REFERENCES

Industry, City of. 2014a. 2014 General Plan. Adopted June 12, 2014.

———. 2014b. City of Industry General Plan Update EIR (State Clearinghouse No. 2011031090).

US Green Building Council. 2008. Building Area per Employee by Business Type.

This page intentionally left blank.

4 ENVIRONMENTAL SETTING

4. Environmental Setting

4.1 INTRODUCTION

This section describes the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published from both a local and a regional perspective (CEQA Guidelines Section 15125[a]), pursuant to provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The environmental setting describes the baseline physical conditions from which the lead agency will determine the significance of environmental impacts resulting from the proposed project. The information for this section was derived from the City of Industry General Plan (Industry 2014), and the Initial Study for the proposed project (refer to Appendix A).

4.2 REGIONAL ENVIRONMENTAL SETTING

4.2.1 Regional Location

The City of Industry is located in eastern Los Angeles County, in the East San Gabriel Valley region, near the junction of Orange and San Bernardino counties. As shown in Figure 3-1, Regional Location, the city is surrounded by portions of unincorporated Los Angeles County (including Valinda and South San Jose Hills) and La Puente, Baldwin Park, West Covina, and Walnut to the north; Pomona and Diamond Bar to the east; unincorporated portions of Los Angeles County (including Hacienda Heights and Rowland Heights) to the south; and portions of unincorporated Los Angeles County (including Bassett and Avocado Heights) and Pico Rivera and El Monte to the west. The City of Industry encompasses approximately 7,707 acres, or 12.04 square miles, in the East San Gabriel Valley between the Puente Hills to the south and the San Jose Hills to the north.

4.2.2 Regional Planning Considerations

Air Quality Management Plan

An air basin generally has similar meteorological and geographic conditions throughout. California is geographically divided into 15 air basins, and the City of Industry is in the South Coast Air Basin (SoCAB). This air basin contains the largest urban area in the western United States. It is a 6,600-square-mile coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The SoCAB includes all of the non-desert portions of San Bernardino, Los Angeles (non–Antelope Valley portion), and Riverside counties, and all of Orange County.

The South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP), a comprehensive plan that includes control strategies for emissions from stationary and area sources, as well as from on-road and off-road mobile sources. Every three years since 1979, the SCAQMD has prepared a new AQMP, with updates to the previous plan and a 20-year horizon.

On December 7, 2012, the SCAQMD adopted the 2012 AQMP, which employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. The plan also addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. The plan builds on the approach identified in the 2007 AQMP for attainment of federal particulate matter (PM) and ozone standards, and highlights the significant amount of reductions necessary and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the time frames allowed under the federal Clean Air Act. Through implementation of strategies and mitigation measures to reduce emissions generated during construction and operation of development projects, the 2012 AQMP demonstrates attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 and the federal 8-hour ozone standard by 2023. It includes an update to the revised US Environmental Protection Agency (EPA) 8-hour ozone control plan with new commitments for short-term reductions in nitrogen oxides (NO_X) and volatile organic compounds (VOC). In addition, the 2012 AQMP identifies emerging issues of ultrafine particulate matter ($PM_{1.0}$) and near-roadway exposure and an analysis of energy supply and demand.

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan. Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

Southern California Association of Governments

The Southern California Association of Governments is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization (MPO) for the region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the Southern California region's MPO, the Southern California Association of Governments cooperates with the SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. The City of Industry is within the San Gabriel Valley Council of Governments subregion. SCAG has developed a variety of plans to achieve specific regional objectives. The applicable plan to the proposed project is discussed below.

Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2012, SCAG adopted the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to help coordinate development of the region's transportation improvements. The RTP/SCS is a long-range transportation plan that is developed and updated by SCAG every four years. The RTP/SCS provides a vision for transportation investments throughout the region. Using growth forecasts and economic trends that project over a 20-year period, the RTP/SCS considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs.

Los Angeles Regional Water Quality Control Board

The City of Industry is located in the central portion of the San Gabriel River Watershed. The majority of the watershed is in the eastern and southeastern portions of Los Angeles County, with a small portion of the southern boundary in northern Orange County. The watershed is under the authority of the Los Angeles Regional Water Quality Control Board (RWQCB), with the exception of the portion in Orange County, which is under the authority of the Santa Ana Regional Water Quality Control Board. The San Gabriel River Watershed is bounded by the San Gabriel Mountains to the north, San Bernardino County and Orange County to the east, the division of the Los Angeles River from the San Gabriel River to the west, and the Pacific Ocean to the south. The San Gabriel River Watershed is composed of approximately 640 square miles spanning over 37 cities and unincorporated county communities. The watershed drains into the San Gabriel River from the San Gabriel Mountains until its confluence with the Pacific Ocean at Los Alamitos Bay between Long Beach and Seal Beach.

In California, the State Water Resources Control Board and local Regional Water Quality Control Boards have assumed the responsibility of implementing the EPA's National Pollutant Discharge Elimination System (NPDES) permit program. The State Water Resources Control Board is the regulating authority for industrial and construction activities, while the Los Angeles RWQCB issues and enforces MS4 stormwater permits in Los Angeles County, including in the City of Industry.

4.3 LOCAL ENVIRONMENTAL SETTING

4.3.1 Location and Existing Land Use

The project site is located in the central portion of the City of Industry, on the southeast corner of Azusa Avenue and Chestnut Street. The project site is accessible from Chestnut Street on the north, Azusa Avenue on the west, and Railroad Street on the south, and regional access to the site is from the Pomona Freeway (State Route [SR] 60) via the Azusa Avenue interchange.

The proposed project would be constructed on Los Angeles County APNs 8264-024-909, 8264-025-903, -904, -908, -911, -914, -915, -917, and -918. According to the City's General Plan Land Use Map, the existing land use designation for the site is Employment. According to the City's Zoning Map, the existing zoning is Industrial (I), with a small portion of the site at the southwest corner zoned Commercial (C).

The project site is approximately 28.9 acres and comprises nine parcels that were previously developed. However, the site is currently vacant and contains no above-grade structures, with the exception of a billboard at the corner of Railroad Street and Azusa Avenue. Past uses of the site include the Utility Trailer Manufacturing Company, the Transit Mixed Concrete Company, and agricultural use, including strawberry production. These previous uses included development of industrial warehouses in 1964, which were demolished sometime between the late 1990s and early 2000s. The project site contains miscellaneous road base and cement paved areas. The eastern portion of the project site was previously used as an aggregate processing and storage facility, and an aggregate stockpile remains in in the south-central portion of the site.

Surrounding Land Uses

The project site is situated in an industrial area occupied primarily by warehouses, manufacturing facilities, and various businesses (see Figure 3-3, Aerial Photograph). Adjacent businesses/features include:

- North: public right-of-way, followed by the San Jose Creek Channel
- East: industrial recycling facility
- South: industrial warehouse distribution building and office buildings
- West: public right-of-way, followed by multiple industrial warehouse distribution buildings; there are two residences approximately 210 feet northwest of the site

Adjacent properties are zoned as follows:

- North: Industrial (I)
- East: Industrial (I)
- South: Industrial (I), Commercial (C)
- West: Industrial (I)

4.3.2 Biological Resources

The project site has been previously graded and is currently devoid of any natural habitats or sensitive natural communities. The existing vegetation on-site consists of a few trees lining the perimeter of the site, as well as miscellaneous ground cover throughout. There are several small stormwater retention ponds on-site, all of which are currently dry. Due to the disturbed nature of the site and the lack of native habitats, the site does not support wildlife habitats, nor is the site used for overland wildlife movement.

In addition, no existing riparian areas, wetlands, or waterways are located on or adjacent to the project site. Portions of the San Gabriel River and its multiple tributaries are located in other areas of the city; however, these are located well outside of the project area.

The majority of the land area in the city has been developed with industrial, commercial, and business-oriented land uses. Few areas of the city could potentially support native or riparian habitats, including the proposed project site. However, there is a large, partially undeveloped portion of land in the eastern portion of the City of Industry designated as the Industry Business Center (IBC). This area is not known to have sensitive species but it does contain areas of natural habitat that could support sensitive species. The vegetation communities in the IBC area are dominated by annual grassland, but there are also remnant patches of Riversidian sage scrub, mulefat scrub, and purple needlegrass. Drainages and small waterways also cover a portion of this area. This site is currently being developed, and various habitat mitigation measures are being implemented as the IBC project progresses.

4.3.3 Climate and Air Quality

The city is located in the South Coast Air Basin. Basin-wide conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidity. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The annual average temperature varies little throughout the SoCAB, ranging from the low 60s to the high 80s, measured in degrees Fahrenheit. With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. In contrast to a steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Annual average humidity is 70 percent along the coast and 57 percent in the eastern portions of the SoCAB.

In the City of Industry, the climate is normally mild throughout the year, with temperatures seldom varying more than 25 degrees between winter and summer. The mean temperature for the city is 77 degrees. Most rainfall occurs during the winter with nearly 85 percent of the annual total occurring from November through March, while summers are usually without rain. The city's normal average rainfall is 14.68 inches.

The topography and climate of Southern California combine to produce unhealthy air quality in the SoCAB. The mountain ranges to the east affect the diffusion of pollutants by inhibiting their eastward transport. Additionally, temperature inversions, light winds, shallow vertical mixing, a humid to semiarid climate, and extensive sunlight, in conjunction with a shallow marine layer that hinders horizontal and vertical dispersion of air pollutants, all combine to create degraded air quality, especially in the inland valleys. Air quality in the SoCAB generally ranges from fair to poor, similar to air quality in most of coastal Southern California. The entire SoCAB experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

Please refer to Sections 5.1, Air Quality, and 5.3, Greenhouse Gas Emissions, of this EIR for further information concerning existing air quality conditions, an analysis of the project's impacts on local air quality and greenhouse gases, and an evaluation of consistency with the regional AQMP.

4.3.4 Cultural Resources

Archaeological resources are the physical remains of past human activities and can be either prehistoric or historic. A small granite bowl fragment measuring 17 centimeters long and 10.5 centimeters wide was discovered during an archeological survey for a project in the IBC area, over 4 miles away. No other significant archaeological finds have been found in the city, but they may be encountered with future development.

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. Although no known or significant paleontological resources have been discovered within the city's boundaries, fossil remains may occur throughout the city, although the area of their distribution is not known.

Historical resources are buildings, structures, objects, sites, and districts of significance in history, archaeology, architecture, and culture. The City of Industry is home to the Workman and Temple Family Homestead Museum (15415 Don Julian Road), a 6-acre site at the intersection of Don Julian Road and El Encanto Road/Parriott Place that dates from the era when California was still part of Mexico. The museum is registered with the National Register of Historic Places (NPS 2010) and is also designated as a California Historic Landmark by the California Office of Historic Preservation (2011). The city is also home to the John A. Rowland House (16021 E. Gale Avenue), built in 1855 for Rowland's second wife, Charlotte. The house is the oldest surviving brick structure in Southern California. The Rowland House is registered with the National Register of Historic Places (NPS 2010).

The potential impacts of the proposed project on cultural resources are analyzed in Section 5.2, Cultural Resources.

4.3.5 Geology and Landform

The City of Industry is in the Peninsular Ranges Geomorphic Province, a series of mountain ranges separated by northwest-trending valleys, which characterizes the southwest portion of California. More specifically, the city is primarily located along the eastern margin of the San Gabriel River Valley in the eastern Puente Hills, an east-to-west-trending range of hills that separates the Los Angeles Basin to the south from the San Gabriel Valley to the north. Most of Industry lies in the alluvial valley formed by San Jose Creek, which separates the Puente Hills on the south from the San Jose Hills to the north.

The project site is at an elevation of approximately 382 feet above mean sea level. The site and surrounding areas are located in a highly urbanized area that is relatively flat and contains minimal rises or changes in elevation. No major slopes or bluffs are on or adjacent to the site. Like much of the available land in the city, the site is located in an area that is underlain by unconsolidated sediments that include interbedded silts, sands, and gravel. The thickness of these unconsolidated sediments beneath the site has not been determined.

According to California Geological Survey maps, the site is not located within an Alquist-Priolo Earthquake Fault Zone. The closest mapped recently active fault is the Whittier Fault, located approximately 3.5 miles south of the site. Two potentially active faults, the Walnut Creek and San Jose faults, are approximately 2 miles northwest and 3.5 miles northeast of the site, respectively (CGS 2010, 2015). Potentially active faults are defined as those where surface rupture has occurred during the past 1,600,000 years.

4.3.6 Hydrology

The project site is relatively flat with a slight gradient to the northwest. There are several small storm water retention ponds on-site, all of which are currently dry. The nearest drainage channel to the project site is the San Jose Creek Channel, which passes just north of the site and runs in an east–west orientation.

The project site is located above the Puente Subbasin of the San Gabriel Groundwater Basin. Groundwater levels in the Puente Subbasin are managed by the Puente Basin Watermaster to avoid groundwater withdrawals exceeding recharges. The site has a shallow depth to groundwater (approximately 30 feet below ground surface).

4.3.7 Noise

The greatest noise exposure at the project site emanates from traffic traversing Azusa Avenue. The site is also impacted by train-related noise from the Union Pacific railroad tracks located both north and south of the site. According to Figure 5.10-2, Existing Noise Contours, in the City's (2014b) General Plan Update EIR, the entirety of the site is within the 60 and 65 CNEL noise contours, and the area along Azusa Avenue is within the 70 CNEL noise contour.

The project site is not in an area covered by an airport land use plan or within 2 miles of a public airport or heliport. The project is well beyond any aviation-related 60 dBA CNEL zone.

4.3.8 Public Services and Utilities

The City of Industry contracts with the Los Angeles County Fire Department (LACFD) for fire protection services. The City is served by Division 8, Battalion 12 of the LACFD, which mans and operates six fire stations (Fire Stations 26, 43, 87, 91, 118, and 145). Battalion 12 also provides fire protection services to Rowland Heights, La Puente, La Mirada, and Hacienda Heights. The nearest fire station to the project site is Fire Station 118 at 17056 Gale Avenue in the City of Industry, about 0.4 mile southwest of the site.

The City of Industry contracts with the Los Angeles County Sheriff's Department (LASD) for law enforcement and crime prevention services. The LASD has a patrol station in the City of Industry at 150 Hudson Avenue, approximately 2.1 miles northwest of the project site. This station is responsible for providing police services to Industry, La Puente, and La Habra Heights and the unincorporated Los Angeles County communities of East and West Valinda, Bassett/North Whittier, and Hacienda Heights.

The Rowland Water District (RWD) would provide water to the project development. Nearly 20 percent of the RWD's water supply comes from groundwater that is pumped from wells in the Puente Subbasin; the remaining 80 percent comes from imported water (RWD 2014).

Wastewater treatment for the City of Industry, including the project site, is provided though the Los Angeles County Sanitation Districts (LACSD), whose purpose is to construct, operate, and maintain facilities that collect, treat, recycle, and dispose of domestic and industrial wastewater. Individual districts operate and maintain their own portions of the collection system. There are 24 independent districts serving Los Angeles County; the City of Industry is located in portions of Districts 15, 18, and 21. Cities are responsible for collection of wastewater through local lines, which feed to major trunk lines that vary from 8 inches to 144 inches in diameter. The San Jose Creek Water Reclamation Plant, with a treatment capacity of 100 million gallons per day (mgd), serves the City of Industry (LACSD 2014). It provides primary, secondary, and tertiary treatment that yields approximately 42 mgd of reclaimed water for use in groundwater recharge and irrigation; the remainder is discharged to the San Gabriel River.

4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts are the change caused by the incremental impact of an individual project compounded with the incremental impacts from closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CEQA Guidelines Section 15130 states that cumulative impacts are to be discussed when the project's incremental effect is considerable. The section further states that this discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The CEQA Guidelines (Section 15130[b][1]) state that the information utilized in an analysis of cumulative impacts should come from one of two sources:

1) A list of past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

2) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

The cumulative impact analysis is this DEIR uses method 1. The areas in which cumulative impacts are considered varies between sections in Chapter 5, Environmental Analysis, in this DEIR and is identified in the Cumulative Impacts subsection of each section of Chapter 5. For instance, the geographic scope of air quality is the SoCAB, the air basin where the city is located. Potential cumulative impacts related to traffic, which have the potential for impacts beyond the city's boundary, have been addressed by using the related projects list in Table 4-1 and through use of an ambient growth rate (1 percent per year through 2017).

Table 4-1 Cumulative Projects List

Address	Acres	Building Area (sq. ft.)	Description	Project Status
17651 Railroad Street	3.02	65,599	Tilt-up spec. industrial building for warehouse and distribution	Under construction
18639 Railroad Street	4.96	107,000	Tilt-up spec. industrial building for warehouse and distribution	Approved
1590 Azusa Avenue	1.08	5,910	Restaurant (210 seats)	Completed
1548 Azusa Avenue	1.75	4,632	Fast-food restaurant with drive-through (Chick-Fil-A) 138 seats	Under construction

Source: RK Engineering Group 2015; City of Industry 2016

4.5 REFERENCES

CGS (California Geological Survey). 2002. California Geomorphic Provinces. Note 36.

———. 2010a. Alquist-Priolo Earthquake Fault Zones of California. http://www.quake.ca.gov/gmaps/ap/ap_maps.htm.

———. 2010b. Fault Activity Map of California. http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html.

———. 2015. Seismic Hazard Zonation Program. http://www.consrv.ca.gov/cgs/rghm/ap/Pages/index.aspx.

Industry, City of. 2014a. 2014 General Plan. Adopted June 12, 2014.

———. 2014b. City of Industry General Plan Update EIR (State Clearinghouse No. 2011031090).

LACSD (Los Angeles County Sanitation Districts). 2014. San Jose Creek Water Reclamation Plant. http://www.lacsd.org/wastewater/wwfacilities/joint_outfall_system_wrp/san_jose_creek.asp.

NPS (National Park Service, US Department of the Interior). 2010. National Register of Historic Places. http://www.nps.gov/nr/.

RK Engineering Group. 2015. CT Industry Center Traffic Impact Study, City of Industry, California.

RWD (Rowland Water District). 2014. District website. http://www.rowlandwater.com/formsdocuments/.

SCAG (Southern California Association of Governments). 2012. 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy. http://rtpscs.scag.ca.gov/Pages/default.aspx.

SCAQMD (South Coast Air Quality Management District). 2013. 2012 Final Air Quality Management Plan. http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan.

This page intentionally left blank.

5 ENVIRONMENTAL ANALYSIS

5.1 Air Quality

5.1 AIR QUALITY

This section evaluates the potential for the proposed project to impact air quality in a local and regional context. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). Air quality modeling is based on trip generation information in the traffic impact analysis prepared by RK Engineering Group, Inc. (see Appendix H). Criteria air pollutant emissions modeling for construction and operational phases is included in Appendix C of this Draft EIR. The health risk assessment (HRA) is in Appendix D.

5.1.1 Environmental Setting

5.1.1.1 REGULATORY FRAMEWORK

Ambient air quality standards have been adopted and are periodically updated at state and federal levels for criteria air pollutants. In addition, both the state and federal governments regulate the release of toxic air contaminants (TACs). The project site is in the South Coast Air Basin (SoCAB). Land use is subject to the rules and regulations imposed by the SCAQMD, the California ambient air quality standards (CAAQS) adopted by the California Air Resources Board (CARB), and national ambient air quality standards (NAAQS) adopted by the US Environmental Protection Agency (EPA). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the project are summarized below.

Federal and State Laws and Regulations

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting NAAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollutants. The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS tend to be more restrictive than the NAAQS.

The National and California ambient air quality standards are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect 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.

Both the State of California and the federal government have established health-based ambient air quality standards for seven air pollutants, which are shown in Table 5.1-1, Ambient Air Quality Standards for Criteria Pollutants. These pollutants are ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 5.1-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm[5]	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm[4]	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm[2]	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm[1,4]	
	24 hours	0.04 ppm	0.014 ppm[2]	
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust- and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Particulate Matter – Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3[3, 3]	Dust- and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing and recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarterly	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)	24 hours	25 µg/m^3	*	Industrial processes.
Visibility-Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles[1]	*	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm	*	H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.

Table 5.1-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Vinyl Chloride	24 hour	0.01 ppm	*	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2015b
Notes: ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
[1] When relative humidity is less than 70 percent.
[2] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
[3] On December 14, 2012, the EPA lowered the federal primary $PM_{2.5}$ annual standard from 15.0 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The EPA made no changes to the primary 24-hour $PM_{2.5}$ standard or to the secondary $PM_{2.5}$ standards.
[4] NO_2 and SO_2 standards are converted from ppb (parts per billion) to ppm for consistency purposes.
[5] On October 1, 2015, the EPA strengthened the National Air Quality Standards for ground-level ozone to 70 ppb, based on extensive scientific evidence about ozone's effects on public health and welfare.

The State of California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

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

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and to reduce exposure to them. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health" (17 CCR Section 93000). A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 U.S. Code Section 7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below 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. To date, CARB has established formal control measures for 11 toxic air contaminants that are identified as having no safe threshold.

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, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings. In the South Coast Air Basin, the SCAQMD is responsible for establishing the prioritization score threshold at which facilities are defined as high priority facility. In establishing priorities, the SCAQMD considers the potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to potential receptors, and any other factors that the air district determines may indicate that the facility may pose a significant risk.

CARB has promulgated the following specific rules to limit TAC emissions:

- CARB Rule 2485 (13 CCR Chapter 10, Section 2485), Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- CARB Rule 2480 (13 CCR Chapter 10, Section 2480), Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- CARB Rule 2477 (13 CCR Section 2477 and Article 8), Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are criteria air pollutants, which means that ambient air quality standards have been established for them. VOC and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

A description of each of the primary and secondary criteria air pollutants and its known health effects is presented below.

- **Carbon Monoxide** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005; EPA 2015a). The SoCAB is designated under the California and national ambient air quality standards as being in attainment of CO criteria levels (CARB 2014).

- **Volatile Organic Compounds** are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (SCAQMD 2005). There are no ambient air quality standards for VOCs. However, volatile organic compounds contribute to the formation of O_3, the SCAQMD has established a significance threshold (see Section 5.1.2).

- **Nitrogen Oxides** are a byproduct of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_X produced by combustion is NO, but NO reacts quickly with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called nitrogen oxides. NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics, children, and the elderly. Current scientific evidence links short-term NO_2 exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (SCAQMD 2005; EPA 2015a). The SoCAB is designated an attainment area for NO_2 under the national and California ambient air quality standards (CARB 2014).

- **Sulfur Dioxide** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and a secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing.) At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (SCAQMD 2005; EPA 2015a). The SoCAB is designated attainment under the California and national ambient air quality standards (CARB 2014).

- **Suspended Particulate Matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤10 millionths of a meter or 0.0004 inch). Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e., ≤2.5 millionths of a meter or 0.0001 inch). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The EPA's scientific review concluded that $PM_{2.5}$, which

penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (SCAQMD 2005). There has been emerging evidence that ultrafine particulates (UFPs), which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), have human health implications, because UFPs' toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (SCAQMD 2013). However, the EPA or CARB has yet to adopt ambient air quality standards to regulate these particulates. Diesel particulate matter (DPM) is classified by CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment, environmental damage, and aesthetic damage (SCAQMD 2005; EPA 2015a).[1] The SoCAB is a nonattainment area for $PM_{2.5}$ under the California and national ambient air quality standards and a nonattainment area for PM_{10} under the California standards (CARB 2014).[2]

- **Ozone** is commonly referred to as smog and is a gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. Ozone concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. Ozone also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (SCAQMD 2005; EPA 2015a). The SoCAB is designated extreme nonattainment under the CAAQS (1-hour and 8-hour) and NAAQS (8-hour) (CARB 2014).

- **Lead** is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (SCAQMD 2005; EPA 2015a). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined

[1] $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States. Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems. Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

[2] CARB approved the SCAQMD's request to redesignate the South Coast Air Basin from serious nonattainment for PM_{10} to attainment for PM_{10} under the NAAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM_{10} standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM_{10} nonattainment area to attainment of the PM_{10} NAAQS, effective on July 26, 2013.

by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in the air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[3] As a result of these violations, the Los Angeles County portion of the SoCAB is designated as nonattainment under the NAAQS for lead (SCAQMD 2012a; CARB 2014). The project does not include any source of lead emissions; therefore, lead is not a pollutant of concern for the project.

Toxic Air Contaminants

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as toxic air contaminants (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified diesel particulate matter as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

Community Risk

In addition, to reduce exposure to toxic air contaminants, CARB (2005) developed and approved the Air Quality and Land Use Handbook: A Community Health Perspective to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. However, these recommendations are not site-specific and should not be interpreted as mandated buffer zones. It is also important to note that the handbook's recommendations are advisory and need to be balanced with other state and local policies (CARB 2005). The recommended distances for potential TAC sources are listed in Table 5.1-2, Recommendations on Siting New Sensitive Land Uses Near Air Pollutant Sources.

Table 5.1-2 Recommendations on Siting New Sensitive Land Uses Near Air Pollutant Sources

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.

[3] Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 and 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2012a).

Table 5.1-2 Recommendations on Siting New Sensitive Land Uses Near Air Pollutant Sources

Source Category	Advisory Recommendations
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within 1 mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perc. dry cleaners.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Source: CARB 2005
Notes: Recommendations are advisory, are not site-specific, and may not fully account for future reductions in emissions, including those resulting from compliance with existing/future regulatory requirements, such as reductions in diesel-exhaust emissions anticipated to occur with continued implementation of CARB's Diesel Risk Reduction Plan.

This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. Three carcinogenic toxic air contaminants constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks, and benzene and 1,3 butadiene from passenger vehicles. CARB recommendations are based on data which show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Air Quality Management Planning

The SCAQMD is the agency responsible for improving air quality in the South Coast Air Basin and ensuring that the national and California ambient air quality standards are attained and maintained. The SCAQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2012 Air Quality Management Plan

On December 7, 2012, the SCAQMD adopted the 2012 Air Quality Management Plan, which employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. It also addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. The 2012 AQMP builds on the approach identified in the 2007 AQMP for attainment of federal PM and ozone standards and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the time frame allowed under the federal Clean

Air Act. The 2012 AQMP demonstrates attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 and the federal 8-hour ozone standard by 2023 through the establishment of a program of rules and regulations directed at reducing air pollutant emissions. The development of such rules and regulations entails integrated planning. The 2012 AQMP proposes a control strategy that includes emission reductions from both stationary and mobile sources. The proposed stationary source control measures in the 2012 AQMP are based on implementation of all feasible control measures through the application of available cleaner technologies, best management practices, and incentive programs, as well as development and implementation of zero- and near-zero technologies and control methods. The stationary source control measures presented in the plan are proposed to further reduce emissions from both point sources (permitted facilities) and area sources (generally small and non-permitted) in addition to smaller permitted sources with emissions less than the reporting threshold in the SCAQMD's Annual Emissions Reporting Program. The basic principles followed in developing the air district's stationary source control measures include (1) identify $PM_{2.5}$, ammonia, and/or NOx reduction opportunities and maximize reductions by the 2014 attainment date, and (2) initiate programs or rule-making activities for ROG and further NOx control strategies aimed at maximum reductions by the 2023 time frame to further implement the ozone plan for the 1997 8-hour ozone standard. The mobile source strategy includes actions seeking further emission reductions from both on-road and off-road mobile sources, such as accelerated penetration of zero and near-zero emission vehicles and early retirement of older vehicles. In addition, the mobile source strategy includes research and development of advanced control technologies from various mobile sources.

Preliminary ambient air quality data suggests that meeting the 2016 federal 24-hour $PM_{2.5}$ standards by the end of 2016 is not likely, largely due to the usually extreme drought conditions in the SoCAB (SCAQMD 2015c). It includes an update to the revised EPA 8-hour ozone control plan with new commitments for short-term NO_X and VOC reductions. The plan also identifies emerging issues of ultrafine particulate matter ($PM_{1.0}$) and near-roadway exposure, and an analysis of energy supply and demand.

2016 Draft Air Quality Management Plan

The SCAQMD is in the process of updating the Air Quality Management Plan. The 2016 AQMP will address strategies and measures to attain the 2008 federal 8-hour ozone standard by 2032 and the 2012 federal annual $PM_{2.5}$ standard by 2021. The 2016 AQMP will also take an initial look at the 2015 federal 8-hour ozone standard. It will also update previous attainment plans for ozone and $PM_{2.5}$ that have not yet been met (SCAQMD 2015d).

Lead State Implementation Plan

In 2008, the EPA designated the Los Angeles County portion of the SoCAB as a nonattainment area under the federal lead classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in Vernon and the City of Industry that exceeded the new standard in the 2007–2009 period. The remainder of the SoCAB, outside the Los Angeles County nonattainment area, remains in attainment of the 2008 lead standard. On May 24, 2012, CARB approved the State Implementation Plan (SIP) revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to the EPA for approval.

5.1.1.2 EXISTING CONDITIONS

South Coast Air Basin

The project site is in the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (SCAQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site is the Pomona Fairplex Station (ID No. 047050). The lowest average low is reported at 38.1°F in January, while the highest average high is 91.1°F in August (WRCC 2015a).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages 17.06 inches per year in the project area according to the data from the Walnut NI FC102C climatological station (ID No. 049431) located closest to the project site (WRCC 2015b).

Humidity

Although the SoCAB has a semi-arid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the air basin by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 2005).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of

coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two similarly distinct types of temperature inversions control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions is a critical determinant in leading to the highly degraded air quality in the summer and the generally good air quality in the winter in the project area (SCAQMD 2005).

SoCAB Nonattainment Designations

The AQMP provides the framework for air quality basins to achieve attainment of the CAAQS and NAAQS through the State Implementation Plan. Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet the ambient air quality standards. Severity classifications for ozone nonattainment are marginal, moderate, serious, severe, and extreme. The attainment status for the SoCAB is shown in Table 5.1-3, Attainment Status of Criteria Pollutants in the South Coast Air Basin. The SoCAB is designated in attainment of the CAAQS for sulfates and designated a nonattainment area for lead (Los Angeles County only) under the NAAQS.

Table 5.1-3 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM_{10}	Serious Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only)[1]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2014

[1] In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state ambient air quality standards as a result of large industrial emitters. Remaining areas within the SoCAB are unclassified.

Existing Air Quality

Existing ambient air quality, historical trends, and projections in the vicinity of the project site are best documented by measurements made by the SCAQMD. The project site is located in Source Receptor Area (SRA) 11 – South San Gabriel Valley. The air quality monitoring station closest to the project site is the Pomona Monitoring Station. This station monitors O_3, CO, and NO_2. Data for PM_{10} and $PM_{2.5}$ is supplemented by the Azusa Monitoring Station and data for SO_2 is supplemented by the Fontana-Arrow Highway Monitoring Station. The most current five years of data monitored at these monitoring stations are included in Table 5.1-4, Ambient Air Quality Monitoring Summary. The data show recurring exceedances of both the state and federal O_3 standards. The data also indicate that the area regularly exceeds the state PM_{10} standard and the federal $PM_{2.5}$ standard. The CO, SO_2, and NO_2 standards have not been exceeded in the last five years in the project vicinity.

Table 5.1-4 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2010	2011	2012	2013	2014
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	9	15	21	12	22
State 8-hour ≥ 0.07 ppm (days exceed threshold)	12	24	30	22	56
Federal 8-Hour > 0.075 ppm (days exceed threshold)	4	16	15	15	33
Max. 1-Hour Conc. (ppm)	0.115	0.119	0.117	0.125	0.123
Max. 8-Hour Conc. (ppm)	0.082	0.096	0.093	0.100	0.100
Carbon Monoxide (CO)[1]					
State 8-Hour > 9.0 ppm (days exceed threshold)	0	0	0	*	*
Federal 8-Hour ≥ 9.0 ppm (days exceed threshold)	0	0	0	*	*
Max. 8-Hour Conc. (ppm)	1.80	1.72	1.47	*	*
Nitrogen Dioxide (NO_2)[1]					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	97	87	81	78	88
Sulfur Dioxide (SO_2)[3]					
State 24-Hour ≥ 0.04 ppm (days exceed threshold)	0	0	0	0	*
Federal 24-Hour ≥ 0.14 ppm (days exceed threshold)	0	0	0	0	*
Max 24-Hour Conc. (ppm)	0.002	0.003	0.004	0.001	*
Coarse Particulates (PM_{10})[2]					
State 24-Hour > 50 μg/m^3 (days exceed threshold)	5	8	6	6	21
Federal 24-Hour > 150 μg/m^3 (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (μg/m^3)	68.0	63.0	77.0	74.0	94.0
Fine Particulates ($PM_{2.5}$)[2]					
Federal 24-Hour > 35 μg/m^3 (days exceed threshold)	1	2	1	0	0
Max. 24-Hour Conc. (μg/m^3)	44.4	94.6	39.6	29.6	32.4

Source: CARB 2015a
ppm: parts per million; parts per billion, μg/m^3: micrograms per cubic meter
Notes: * Data not available.
[1] Data obtained from the Pomona Monitoring Station.
[2] Data obtained from the Azusa Monitoring Station.
[3] Data obtained from the Fontana-Arrow Highway Monitoring Station.

SoCAB Multiple Air Toxics Exposure Study IV

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In 2008, the SCAQMD conducted its third update to the MATES study (MATES III) based on the Office of Environmental Health Hazard Assessment's (OEHHA) 2003 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (2003 HRA Guidance Manual). The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, which accounted for 84 percent of the cancer risk (SCAQMD 2008b).

The SCAQMD recently released the fourth update (MATES IV), which was also based on the OEHHA's 2003 HRA Guidance Manual. The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent

of the risk is attributed to mobile sources, and 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, which accounted for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basin-wide population-weighted risk decreased by approximately 57 percent since MATES III (SCAQMD 2015a).

The OEHHA updated the guidelines for estimating cancer risks on March 6, 2015. The new method uses higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on breathing rates and length of residential exposures. When combined, the SCAQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher than the risk identified in MATES IV using the 2015 OEHHA guidance methodology (e.g., 2.7 times higher than 418 in one million overall excess cancer risk) (SCAQMD 2015a).

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others because of the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, because the majority of the workers tend to stay indoors most of the time. In addition, the workforce is generally the healthiest segment of the population.

The nearby sensitive receptors to the project site are the residential land uses to the northwest approximately 450 feet away.

5.1.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

AQ-3 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

AQ-4 Expose sensitive receptors to substantial pollutant concentrations.

AQ-5 Create objectionable odors affecting a substantial number of people.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold AQ-5

This impact will not be addressed in the following analysis.

South Coast Air Quality Management District Thresholds

The analysis of the project's air quality impacts follows the guidance and methodologies recommended in the SCAQMD's CEQA Air Quality Handbook and the significance thresholds on the air district's website.[4] CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. The SCAQMD has established regional thresholds of significance. In addition to the regional thresholds, projects are subject to the ambient air quality standards.

Regional Significance Thresholds

The SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 5.1-5, SCAQMD Significance Thresholds, lists thresholds that are applicable for all projects uniformly, regardless of size or scope. There is growing evidence that although UFPs contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from particulate matter. However, the EPA and CARB have not yet adopted ambient air quality standards to regulate UFPs; therefore, the SCAQMD has not developed thresholds for them.

Table 5.1-5 SCAQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROG)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: SCAQMD 2015g ($PM_{2.5}$ threshold adopted June 1, 2007)

Projects that exceed the regional significance threshold contribute to the South Coast Air Basin's nonattainment designation. The attainment designations are based on the ambient air quality standards, which are set at levels of exposure that are determined to not result in adverse health. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems. The health effects of air pollution include the following:

- Linked to increased cancer risk ($PM_{2.5}$, TACs)
- Aggravates respiratory disease (O_3, $PM_{2.5}$)

[4] The SCAQMD's air quality significance thresholds are current as of March 2015 and can be found at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

- Increases bronchitis (O_3, $PM_{2.5}$)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O_3)
- Reduces resistance to infections and increases fatigue (O_3)
- Reduces lung growth in children ($PM_{2.5}$)
- Contributes to heart disease and heart attacks ($PM_{2.5}$)
- Contributes to premature death (O_3, $PM_{2.5}$)
- Linked to lower birth weight in newborns ($PM_{2.5}$) (SCAQMD 2015e)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of $PM_{2.5}$ is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists responsible for a landmark children's health study found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (SCAQMD 2015f).

Mass emissions in Table 5.1-5 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. Therefore, regional emissions from a single project do not single-handedly trigger a regional health impact, and it is speculative to identify how many more individuals in the air basin would be affected by the health effects listed above. It is also speculative for this broad-based analysis to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment, which is the purpose of the AQMP. The SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SoCAB. To achieve the health-based standards established by the EPA, the SCAQMD prepares an Air Quality Management Plan detailing regional programs to attain the ambient air quality standards.

Localized Significance Thresholds

The SCAQMD identifies localized significance thresholds (LSTs), shown in Table 5.1-6, SCAQMD Localized Significance Thresholds. Emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at a project site could expose sensitive receptors to substantial concentrations of criteria air pollutants. (Off-site mobile-source emissions are not included in the LST analysis.) A project that generates emissions that trigger a violation of the ambient air quality standards when added to the local background concentrations would generate a significant impact.

Table 5.1-6 SCAQMD Localized Significance Thresholds

Air Pollutant (relevant ambient air quality standard)	Concentration
1-Hour CO Standard (CAAQS)[1]	20 ppm
8-Hour CO Standard (CAAQS/NAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual Average NO_2 Standard (CAAQS)[1]	0.03 ppm
24-Hour PM_{10} Standard – Construction (SCAQMD)[2]	10.4 µg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (SCAQMD)[2]	10.4 µg/m^3
24-Hour PM_{10} Standard – Operation (SCAQMD)[2]	2.5 µg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (SCAQMD)[2]	2.5 µg/m^3
Annual Average PM_{10} Standard (SCAQMD)[2]	1.0 µg/m^3

Source: SCAQMD 2015b
ppm – parts per million; µg/m^3 – micrograms per cubic meter
[1] Based on the more restrictive CAAQS for CO and NO_2.
[2] Threshold is based on SCAQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is not relevant.

To assist lead agencies, the SCAQMD developed screening-level LSTs to back-calculate the mass amount (pounds per day) of emissions generated on-site that would trigger the hourly levels shown in Table 5.1-6 for projects under 5 acres. LSTs are based on the ambient concentrations of that pollutant within the project's Source Receptor Area and the distance to the nearest sensitive receptor. Screening-level LST analyses are the localized significance thresholds for all projects of 5 acres and less; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.1-6.

The construction LSTs in SRA 11 are shown in Table 5.1-7, SCAQMD Construction Localized Significance Screening Thresholds. For construction activities, LSTs are based on the acreage disturbed per day based on equipment use. The different types of construction activities would require different equipment mixes, resulting in multiple LSTs.

Table 5.1-7 SCAQMD Construction Localized Significance Screening Thresholds

	Threshold (lbs/day)[1]			
Acreage Disturbed	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
1.31 Acres Disturbed per Day	95	785	43.02	14.14
3.50 Acres Disturbed per Day	152	1,422	59.71	20.52
5.00 Acres Disturbed per Day	183	1,814	70.84	24.55

Source: SCAQMD 2008c; based on receptors in SRA 11
[1] LSTs are based on sensitive receptors within 450 feet (137 meters) and non-sensitive receptors within 82 feet (25 meters).

The operational LSTs in SRA 11 are shown in Table 5.1-8, SCAQMD Screening-Level Operational Localized Significance Thresholds.

Table 5.1-8 SCAQMD Screening-Level Operational Localized Significance Thresholds

Air Pollutant	Threshold (lbs/day) Operational[1]
Nitrogen Oxides (NO_X)	183
Carbon Monoxide (CO)	1,814
Coarse Particulates (PM_{10})	18
Fine Particulates ($PM_{2.5}$)	6

Source: SCAQMD 2008c; based on receptors in SRA 11
[1] LSTs are based on sensitive receptors within 450 feet (137meters) and non-sensitive receptors within 82 feet (25 meters).

CO Hot Spots

Areas of vehicle congestion have the potential to create pockets of carbon monoxide called hot spots. These pockets have the potential to exceed the state 1-hour standard of 20 ppm or the 8-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels, as well as implementation of control technology on industrial facilities, CO concentrations in the South Coast Air Basin and the state have steadily declined.

Health Risk Analysis

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401; placed on CARB's air toxics list pursuant to AB 1807, the Air Contaminant Identification and Control Act (1983); or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the SCAQMD. Table 5.1-9, SCAQMD Toxic Air Contaminants Incremental Risk Thresholds, lists the air district's TAC incremental risk thresholds for operation of a project. Residential, commercial, and office uses do not use substantial quantities of TACs, and these thresholds are typically applied for new industrial projects.

Table 5.1-9 SCAQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Individual Cancer Risk	≥ 10 in 1 million
Cancer Burden (in areas ≥1 in 1 million)	> 0.5 excess cancer cases
Hazard Index (project increment)	≥ 1.0

Source: SCAQMD 2015b

5.1.3 Environmental Impacts

Methodology

This air quality evaluation was prepared in accordance with the CEQA requirements to determine if significant air quality impacts are likely to occur in conjunction with implementation of the proposed project. The SCAQMD has published guidelines that are intended to provide local governments with guidance for analyzing and mitigating air quality impacts and that were used in this analysis (SCAQMD 1993, 2008a, 2015b, 2015g).

The analysis also makes use of California Emissions Estimator Model (CalEEMod) Version 2013.2.2 for determination of daily construction and operational emissions. Construction emissions are based on the construction information provided by the project applicant, who anticipates approximately six weeks of site preparation and grading activities, followed by building construction, site paving, and painting. While construction of the warehouse buildings is estimated to last just under a year, building construction, site paving, and painting are anticipated to occur simultaneously for about three weeks. Where specific information was not available, construction assumptions were based on CalEEMod defaults in addition to past similar projects (see Appendix C). Operational emissions impacts are based on information on project-related trip generation and vehicle miles traveled (VMT) provided in the traffic impact analysis (see Appendix H).

The analysis makes use of methodology included in the SCAQMD Final Localized Significance Threshold Methodology (2008a) in order to compare the proposed project to the SCAQMD's localized significance thresholds, which were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. As previously described, LST analyses are the localized significance thresholds for all projects of 5 acres and less; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations. For construction activities, LSTs are based on the acreage disturbed per day based on equipment use. The different types of construction activities would require different equipment mixes, resulting in multiple LSTs. The SCAQMD has issued guidance on applying CalEEMod to localized significance thresholds. 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 5.1-10, Equipment-Specific Grading Rates, is used to determine the maximum daily disturbed acreage for comparison to the LSTs.

Table 5.1-10 Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
2016 Building Construction	Cranes	1	0.0	7	0.0
	Forklifts	3	0.0	8	0.0
	Crawler Tractors	3	0.5	7	1.3
				Total Acres Graded per Day	1.3
2017 Building Construction	Cranes	1	0.0	7	0.0
	Forklifts	3	0.0	8	0.0
	Crawler Tractors	3	0.5	7	1.3
				Total Acres Graded per Day	1.3
2017 Building Construction, Paving, and Painting	Cranes	1	0.0	7	0.0
	Forklifts	3	0.0	8	0.0
	Crawler Tractors	3	0.5	7	1.3
	Pavers	2	0.0	8	0.0
	Rollers	2	0.0	8	0.0
	Air Compressors	1	0.0	6	0.0
				Total Acres Graded per Day	1.3
Site Preparation	Crawler Tractors	4	0.5	8	2.0
	Rubber-Tired Dozers	3	0.5	8	1.5
				Total Acres Graded per Day	3.5
Grading	Crawler Tractors	2	0.5	8	1.0
	Graders	1	0.5	8	0.5
	Excavators	2	0.5	8	1.0
	Rubber-Tired Dozers	1	0.5	8	0.5
	Scrapers	2	1.0	8	2.0
				Total Acres Graded per Day	5.0

Source: CalEEMod 2013 v.2.2

A health risk assessment (HRA) was prepared to determine if toxic air emissions associated with operational activities at the facility (i.e., diesel truck and off-road equipment emissions) could pose a risk to nearby sensitive receptors, such as residents, schools, hospitals, etc. The HRA evaluated both carcinogenic and non-carcinogenic health risks. The risk levels were calculated based on the latest methodology released by the Office of Environmental Health Hazard Assessment and SCAQMD recommendations.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.1-1: The proposed project would generate a substantial increase in emissions and could be inconsistent with the applicable air quality management plan. [Threshold AQ-1]

Impact Analysis: A consistency determination with the Air Quality Management Plan plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision-makers of the environmental efforts of the project under consideration

early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether the local agency is contributing to the clean air goals in the AQMP. The most recent adopted comprehensive plan is the South Coast Air Quality Management District's 2012 AQMP, which was adopted on December 7, 2012.

The regional emissions inventory for the South Coast Air Basin is compiled by the SCAQMD and SCAG. Regional population, housing, and employment projections developed by SCAG are based, in part, on the land use designations in the general plans of the cities in the region. These projections form the foundation for the emissions inventory of the AQMP. Demographic trends are incorporated into the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), compiled by SCAG to determine priority transportation projects and VMT in the SCAG region. The AQMP strategy is based on projections from local general plans. Projects that are consistent with the local general plans are considered consistent with the air quality–related regional plan.

CEQA Guidelines Section 15206(b) requires that the lead agency determine that a proposed project is of statewide, regional, or area-wide significance if the project is an industrial development encompassing more than 650,000 square feet of floor area. Therefore, the proposed project, which includes approximately 615,000 square feet of floor area, is not considered regionally significant by SCAG. Changes in population, housing, or employment growth projections associated with this project would not have the potential to substantially affect SCAG's demographic projections, and therefore demographic projections used in the SCAQMD's Air Quality Management Plan may be relied on and are not exceeded during the project's operations.

Although the proposed project would not substantially affect the regional growth projections because the land use is consistent with the underlying City of Industry General Plan land use designation, the proposed project would represent a substantial increase in emissions compared to existing conditions and would exceed the SCAQMD's regional operational significance threshold for NO_x (see Impact 5.1-3). As a result, the proposed project could potentially exceed the assumptions in the AQMP and would not be considered consistent with the AQMP. Consequently, impacts would be potentially significant.

Impact 5.1-2: Construction activities associated with the proposed project would generate short-term emissions that exceed the South Coast Air Quality Management District's regional construction threshold for volatile organic compounds. [Thresholds AQ-2 and AQ-3]

Impact Analysis: A project would normally have a significant effect on the environment if it violates any air quality standard or contributes substantially to an existing or projected air quality violation. Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Site preparation activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from grading and excavation and from demolition. Air pollutant emissions from construction activities onsite would vary daily as construction activity levels change.

Construction activities for the proposed project would temporarily increase PM_{10}, $PM_{2.5}$, VOC, NO_X, SO_X, and CO regional emissions within the South Coast Air Basin. Activities would include site preparation, grading, and construction of the warehouse buildings. As previously stated, the project applicant anticipates approximately six weeks of site preparation and grading activities, followed by building construction, site paving, and painting. While construction of the warehouse buildings is estimated to last just under a year, building construction, site paving, and painting are anticipated to occur simultaneously for about three weeks. Estimates of maximum daily construction

emissions are provided in Table 5.1-11, Maximum Daily Regional Construction Emissions. As shown in the table, maximum daily construction emissions would not exceed the SCAQMD's regional construction significance thresholds for NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$. However, the maximum daily emissions of VOC generated from the combined building construction, paving, and architectural coating activities would exceed the SCAQMD's regional construction significance threshold for volatile organic compounds. Consequently, impacts to regional air quality from project-related construction activities would be potentially significant.

Table 5.1-11 Maximum Daily Regional Construction Emissions

Construction Phase(s)	Criteria Air Pollutants (pounds per day)[1, 2]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 2016						
Site Preparation	5	55	43	<1	11	7
Grading	7	75	51	<1	8	5
Building Construction	6	42	55	<1	6	3
Year 2017						
Building Construction	5	38	51	<1	6	3
Building Construction + Paving + Architectural Coating	338	61	72	<1	1	<1
Maximum						
Maximum Daily Emissions	338	75	72	<1	11	7
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	Yes	No	No	No	No	No

Source: CalEEMod Version 2013.2.2. Totals may not add up to 100 percent due to rounding.
Bold: Exceeds threshold.
1 Based on the preliminary information provided by the project applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by the SCAQMD of construction equipment and phasing for comparable projects.
2 Includes implementation of fugitive dust control measures required by the SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers. Modeling also assumes a VOC of 100 g/L for paints pursuant to SCAQMD Rule 1113.

Impact 5.1-3: Long-term criteria air pollutant emissions associated with the proposed project would exceed the South Coast Air Quality Management District's regional operational significance threshold for NO_x. [Thresholds AQ-2 and AQ-3]

Impact Analysis: Buildout of the proposed project would result in criteria air pollutant emissions from equipment used on-site and truck idling (area sources), natural gas used for heating (energy), and trips generated by the proposed warehouse buildings (transportation). Information on trip generation and fleet mix is from the traffic impact analysis (Appendix H), and trip length is based on the SCAG model for passenger vehicles and trucks for the City of Industry in the 2012 Regional Transportation Plan (RTP) for model year 2020 provided by Iteris. Criteria air pollutant emissions were modeled using CalEEMod. Table 5.1-12, Maximum Daily Regional Operational Emissions, identifies criteria air pollutant emissions from the proposed project.

Table 5.1-12 Maximum Daily Operational Phase Regional Emissions

Source	Criteria Air Pollutants (lbs/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	19	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Transportation[1]	14	116	182	1	27	8
Offroad[2]	4	32	22	<1	3	2
Truck Idling[3]	1	9	7	<1	<1	<1
Total Emissions	37	158	211	1	30	11
SCAQMD Regional Threshold	55	55	550	150	150	55
Exceeds Regional Threshold?	No	**Yes**	No	No	No	No

Source: CalEEMod Version 2013.2.2. Highest winter or summer emissions. Totals may not add up to 100 percent due to rounding.
Bold: Exceed Threshold.
1 Transportation emissions based on truck trip generation rates and fleet mix provided by RK Engineering Group, Inc. Truck trip length and passenger vehicle trip length for the City of Industry are based on the SCAG RTP model for model year 2020 provided by Iteris. Modeling assumes trucks idle for 15 minutes on-site.
2 Assumes 11 diesel-powered forklifts at the warehouse buildings operating for 4 hours per each shift and a total of 3 work-shifts per day and 1 propane-powered forklift at the warehouse operating for 8.5 hours per day.
3. Truck idling is based on EMFAC2014 idle emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT) for the buildout year (2017), and assumes 15 minutes of idling per truck.

As shown in the table, maximum daily construction emissions would not exceed the SCAQMD's regional operation significance thresholds for VOC, CO, SO_2, PM_{10}, and $PM_{2.5}$. However, the maximum daily emissions of NO_X would exceed the SCAQMD's regional operation significance threshold. Consequently, impacts to regional air quality from project-related construction activities would be potentially significant.

Impact 5.1-4: The proposed project would expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-4]

Impact Analysis: The proposed project could expose sensitive receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects.

Construction LSTs

Localized significance thresholds (LSTs) are based on the CAAQS, which are the most stringent ambient air quality standards that have been established to provide a margin of safety in the protection of public health and welfare. They are designated to protect 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 people engaged in strenuous work or exercise. Construction LSTs are based on the size of the project site, distance to the nearest sensitive receptor, and Source Receptor Area. Receptors proximate to the proposed project are the residences to the northwest. As previously described, for construction activities, LSTs are based on the acreage disturbed per day based on equipment use. The different types of construction activities would require different equipment mixes, resulting in multiple LSTs. The SCAQMD issued guidance on applying CalEEMod to localized significance thresholds. 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 5.1-10, Equipment-Specific Grading Rates, is used to determine the maximum daily disturbed acreage for comparison to the LSTs (Mitigation Measure AQ-7 is imposed to ensure the anticipated maximum daily disturbed acreage is not exceeded).

Air pollutant emissions generated by construction activities are anticipated to cause increases in air pollutant concentrations. Table 5.1-13, Localized Construction Emissions, shows the maximum daily construction emissions (pounds per day) generated during on-site construction activities compared with the SCAQMD's localized significance thresholds. As shown in the table, construction activities would not exceed the LSTs. Therefore, localized impacts would be less than significant, and no mitigation measures are required.

Table 5.1-13 Localized Construction Emissions

Source	Pollutants (pounds per day)[1, 2]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
2016 Building Construction	29	19	1.97	1.85
2017 Building Construction	26	18	1.78	1.67
2017 Building Construction + Paving + Architectural Coating	49	35	3.09	2.89
SCAQMD 1.31-acre LST	95	785	43.02	14.14
Exceeds LST?	No	No	No	No
2016 Site Preparation	55	41	10.66	6.95
SCAQMD 3.50-acre LST	152	1,422	59.71	20.52
Exceeds LST?	No	No	No	No
2016 Grading	75	49	7.29	4.84
SCAQMD 5.00-Acre LST	183	1,814	70.84	24.55
Exceeds LST?	No	No	No	No

Source: CalEEMod Version 2013.2.2; SCAQMD 2008a, Appendix A
In accordance with SCAQMD methodology, only on-site stationary sources and mobile equipment occurring on the proposed project site are included in the analysis.
LSTs are based on sensitive receptors within 450 feet (137 meters) and non-sensitive receptors within 82 feet (25 meters) of the proposed project site.
1 Based on the preliminary information provided by the project applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by the SCAQMD of construction equipment and phasing for comparable projects.
2 Includes implementation of fugitive dust control measures required by the SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers. Modeling also assumes a VOC of 100 g/L for interior paints pursuant to SCAQMD Rule 1113.

Operation LSTs

Land uses that have the potential to generate substantial stationary sources of emissions or would require a permit from the SCAQMD include industrial land uses, such as chemical processing, and warehousing operations where substantial truck idling could occur on-site. Table 5.1-14, Localized On-Site Operational Emissions, shows localized maximum daily operational emissions. As shown in this table, maximum daily operational emissions would not exceed SCAQMD operational phase localized significance thresholds. Therefore, operational emissions would not exceed the CAAQS, and project operation would not expose sensitive receptors to substantial pollutant concentrations. Operational LST impacts would be less than significant, and no mitigation measures are required.

Table 5.1-14 Localized On-Site Operational Emissions

Source	Pollutants (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Area Sources	<1	<1	<1	<1
Off-Road Sources	32	22	3	2
Truck Idling[1]	9	7	<1	<1
Maximum Daily On-Site Operation Emissions	41	29	3	2
SCAQMD LST	183	1,814	18	6
Exceeds LST?	No	No	No	No

Source: CalEEMod Version 2013.2.2.; SCAQMD 2008a, Appendix A
Notes: In accordance with SCAQMD methodology, only on-site stationary sources and mobile equipment on the proposed project site are included in the analysis. LSTs are based on sensitive receptors within 450 feet (137 meters) and non-sensitive receptors within 82 feet (25 meters) of a 5-acre site in SRA 11.
1 Truck idling is based on EMFAC2014 idle emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT) for the buildout year (2017), and assumes 15 minutes of idling per truck.

Carbon Monoxide Hot Spots

Areas of vehicle congestion have the potential to create pockets of CO, called hot spots. These pockets have the potential to exceed the state 1-hour standard of 20 parts per million (ppm) or the 8-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds.

The SoCAB has been designated as attainment under both the national and California ambient air quality standards for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact (BAAQMD 2011). The proposed project could generate up to 2,188 average daily trips, with 185 trips during the AM peak hour and 197 trips during the PM peak hour. The number of trips generated is significantly less than the volumes cited above. Furthermore, the SoCAB has since been designated as attainment under both the national and California ambient air quality standards for CO. The project would not have the potential to substantially increase CO hot spots at intersections in the vicinity of the project site. Localized air quality impacts related to mobile-source emissions would be less than significant, and no mitigation measures are required.

Health Risk Assessment

A health risk assessment (HRA) was prepared to determine if toxic air emissions associated with operational activities at the facility (i.e., diesel truck and off-road equipment emissions) could pose a risk to nearby sensitive receptors, such as residents, schools, hospitals, etc. The nearby sensitive receptors to the project site are the residential land uses to the northwest approximately 450 feet away. If operational emissions from the warehouse facilities do not pose a risk to the nearest residents, also would be no risk to sensitive receptors that are located at greater distances. The HRA evaluated both carcinogenic and non-carcinogenic health risks, as discussed below. These calculated risk levels were calculated based on the latest methodology released by the Office of Environmental Health Hazard Assessment and SCAQMD recommendations.

Health risks associated with exposure to carcinogenic compounds at the proposed project site can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The State of California has established that a project would result in a significant impact with regard to increasing exposure to carcinogens regulated under Proposition 65 if the project increases cancer risk by one in 100,000 (1.0×10^{-5}) or more. The SCAQMD has established a maximum incremental cancer risk of 10 in a million (10×10^{-6}) for CEQA projects.

Table 5.1-15, Health Risk Assessment Results, shows the determined health risk values. Based on the air dispersion modeling results, the maximum exposed receptor (MER) was determined to be the residences approximately 450 feet northwest of the project site. Results of the HRA (see Appendix D) indicate that the incremental cancer risk for the MER, based on the maximum ground-floor concentration for a 30-year, 24-hour outdoor exposure duration is 28.1 in a million (28.1×10^{-6}). In comparison to the significance threshold of 10 in a million (10×10^{-6}), carcinogenic risks exceed the threshold value for residents that could be impacted by implementation of the project. Therefore, cancer risk impacts to off-site sensitive receptors would be potentially significant, if not mitigated.

To quantify non-carcinogenic impacts, the hazard index approach was used. The hazard index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity value. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds a value of 1.0, a health hazard is presumed to exist. The HRA performed for the proposed project indicates that the chronic and acute hazard indices identified for each toxicological endpoint totaled less than 1.0 for the MER (see Appendix C). Table 5.1-15 also shows the chronic hazard index and acute hazard index totals in comparison to the significance thresholds. Therefore, non-carcinogenic impacts to off-site sensitive receptors would be less than significant, and no mitigation measures are required.

Since the determined cancer risks exceed the threshold value for residents, the exposure of sensitive receptors to pollutant concentrations from the proposed project would be potentially significant.

Table 5.1-15 Health Risk Assessment Results

Sources	Cancer Risk (per million) [1]	Chronic Hazard Index	Acute Hazard Index
Truck Running[2]	0.08	<0.001	<0.001
Truck Idling[3]	0.46	<0.001	<0.001
Off-Road Sources[4]	27.5	0.008	0.003
Total – All Sources	28.1	0.008	0.003
Significance Threshold	10.0	1.0	1.0
Exceeds Threshold?	Yes	No	No

Sources: Lakes AERMOD View 9.1.0, 2015; CARB 2015c

1 Residential cancer risks were determined using the high-end residency exposure duration of 30 years (OEHHA 2015). For informational purposes, the maximum 70-year lifetime and 9-year average residency time cancer risks were calculated and are provided in Appendix D.

2 Truck running is based on EMFAC2014 running emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT).

3 Truck idling is based on EMFAC2014 idle emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT), and assumes 15 minutes of idling per truck.

4 Assumes 11 diesel-powered forklifts at the warehouse buildings operating for 4 hours per each shift and a total of 3 work-shifts per day and 1 propane-powered forklift at the warehouse operating for 8.5 hours per day.

5.1.4 Cumulative Impacts

In accordance with the SCAQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Cumulative projects include new development and general growth within the project area. The greatest source of emissions in the South Coast Air Basin is mobile sources. Due to the extent of the area potentially impacted from cumulative project emissions (i.e., the SoCAB), the SCAQMD considers a project cumulatively significant when project-related emissions exceed the SCAQMD regional emissions thresholds shown in Table 5.1-5.

Construction

The SoCAB is designated nonattainment for O_3 and $PM_{2.5}$ under the CAAQS and NAAQS, nonattainment for PM_{10} under the CAAQS, and nonattainment for lead (Los Angeles County only) under the NAAQS (CARB 2014).[5] Construction of cumulative projects will further degrade regional and local air quality. Air quality will be impacted during construction activities. Construction-related VOC emissions associated with the proposed project would potentially exceed the SCAQMD's regional significance threshold for the pollutant. Implementation of the mitigation measure would reduce construction-related VOC emissions to less than significant.

Operation

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values is not considered by the SCAQMD to be a substantial source of air pollution and does not add significantly to a cumulative impact. Operation of the project would result in NO_X emissions in excess of the SCAQMD regional emissions threshold. Implementation of the mitigation measure would reduce the operation-related NO_x emissions, but it would not be enough to reduce the NO_X emissions to below the significance threshold.

Additionally, the proposed project would generate truck trips that could contribute to elevated levels of cancer risk in the larger SoCAB. Based on the results of MATES IV, overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics in the SoCAB is approximately 418 in one million. Approximately 90 percent of the risk is attributed to mobile sources (SCAQMD 2015a).

Therefore, operation of the project would result in a cumulatively considerable contribution to regional air quality impacts.

5.1.5 Existing Regulations and Standard Conditions

State

- Clean Car Standards – Pavley (AB 1493)
- California Advanced Clean Cars CARB (13 CCR 1960)

[5] CARB approved the SCAQMD's request to redesignate the South Coast Air Basin from serious nonattainment for PM_{10} to attainment for PM_{10} under the NAAQS, because the SoCAB did not violate federal 24-hour PM_{10} standards from 2004 to 2007. The EPA approved the State of California's request, effective on July 26, 2013.

- Low-Emission Vehicle Program – LEV III (13 CCR 1961.2, 1961.3)
- Statewide Retail Provider Emissions Performance Standards (SB 1368)
- Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools (13 CCR 2480)
- Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling (13 CCR 2485)
- In-Use Off-Road Diesel Idling Restriction (13 CCR 2449)
- Building Energy Efficiency Standards (Title 24, Part 6)
- California Green Building Code (Title 24, Part 11)
- Appliance Energy Efficiency Standards (Title 20)

SCAQMD

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 1113: Architectural Coatings
- SCAQMD Rule 1186: Street Sweeping
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities

5.1.6 Level of Significance Before Mitigation

Without mitigation, the following impacts would be potentially significant:

Impact 5.1-1 The proposed project would generate a substantial increase in emissions and could be inconsistent with the applicable air quality management plan.

Impact 5.1-2 Construction activities associated with the proposed project would generate short-term emissions that exceed the South Coast Air Quality Management District's regional construction threshold for volatile organic compounds.

Impact 5.1-3 Long-term criteria air pollutant emissions associated with the proposed project would exceed the South Coast Air Quality Management District's regional operational significance threshold for NOx.

Impact 5.1-4 The proposed project would expose sensitive receptors to substantial pollutant concentrations.

5.1.7 Mitigation Measures

Impact 5.1-1

Mitigation measures applied for Impact 5.1-3 (see below) would reduce the proposed project's regional operational phase criteria air pollutant emissions to the extent feasible to minimize potential conflicts with the SCAQMD's Air Quality Management Plan. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the air quality management plans due to the number of truck trips and associated emissions that would be generated by buildout of the proposed project.

Impact 5.1-2

AQ-1 During construction, the construction contractor(s) shall require the use of interior paint with 0 grams per liter (g/L) of volatile organic compounds (VOC) (i.e., zero VOC paint) and exterior paint with 50 g/L VOC content. Paints that emit less than the low-VOC limits of South Coast Air Quality Management District (SCAQMD) Rule 1113 are known as "super-compliant paints." Requirements for the use of super-compliant interior paints shall be noted on building plans. A list of super-compliant VOC coating manufacturers is available on the SCAQMD's website (hhttp://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings).

Impact 5.1-3

AQ-2 Only electric-powered or alternative-fueled (e.g., propane, liquefied natural gas, compressed natural gas) off-road equipment, such as forklifts, shall be utilized for daily warehouse operations.

AQ-3 The project developer/applicant shall implement the following measures that are identified as voluntary measures in the 2013 California Green Building Standards Code (CALGreen Code), Appendix A5, Nonresidential Voluntary Measures.

1. The parking lot shall be marked in compliance with CALGreen Code Section A5.106.5.1, which requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles. The designated parking stalls are required to be painted "Clean Air Vehicle" per CALGreen Code Table A5.106.5.1.2.

2. Changing/shower facilities shall be provided as specified in CALGreen Code Section A5.106.4.3.

3. Infrastructure in the parking lots shall be installed to support future electric vehicle charging. Installation shall be consistent with CALGreen Section A5.106.5.3.

AQ-4 Legible, durable, weatherproof 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 instructions for truck drivers to shut off engines when not in use, instructions for drivers of diesel trucks to restrict idling to no more

than 3 minutes, and telephone numbers for the building facilities manager and CARB to report violations.

AQ-5 Signage shall be provided on-site to alert all truck drivers that operation of transport refrigeration units (TRUs) shall be limited to those powered by zero-emission sources and units connected to a local electric power source.

AQ-6 Tenants shall be notified about the availability of alternatively fueled cargo handling equipment, grant programs for diesel-fueled vehicle engine retrofit and/or replacement, designated truck parking locations in the City of Industry, access to alternative fueling stations proximate to the site that supply compressed natural gas, and the US Environmental Protection Agency's SmartWay program.

Impact 5.1-4

Mitigation measures applied for Impact 5.1-3, in particular AQ-2, would significantly reduce the proposed project's operational toxic air contaminant emissions to the extent feasible to minimize exposures to off-site sensitive receptors.

AQ-7 During construction, a maximum of 5 acres of land shall be graded over the course of a single day. The grading of more than 5 acres in a single day shall be prohibited.

5.1.8 Level of Significance After Mitigation

Impact 5.1-1

Mitigation measures applied for Impact 5.1-3 would reduce the proposed project's regional operational phase criteria air pollutant emissions to the extent feasible. However, given the potential increase in truck trips and associated increase in criteria air pollutant emissions, the proposed project would continue to be potentially inconsistent with the assumptions in the AQMP. Therefore, Impact 5.1-1 would remain significant and unavoidable.

Impact 5.1-2

As shown in Table 5.1-16, Maximum Daily Regional Construction Emissions – Mitigated, implementation of Mitigation Measure AQ-1 would reduce construction-related VOC emissions to below the SCAQMD's regional significance thresholds for VOC. Mitigation Measure AQ-1 requires the use of interior paint with 0 g/L VOC content and exterior paint with 50 g/L VOC content. As shown in the table, emissions of VOC would be reduced to below the SCAQMD regional significance thresholds. Therefore, with incorporation of mitigation, impacts from project-related construction activities on regional air quality would be less than significant.

Table 5.1-16 Maximum Daily Regional Construction Emissions – Mitigated

Construction Phase(s)	Criteria Air Pollutants (pounds per day)[1, 2,3]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 2016						
Site Preparation	5	55	43	<1	11	7
Grading	7	75	51	<1	8	5
Building Construction	6	42	55	<1	6	3
Year 2017						
Building Construction	5	38	51	<1	6	3
Building Construction + Paving + Architectural Coating	51	61	72	<1	8	4
Maximum						
Maximum Daily Emissions	51	75	72	<1	11	7
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2013.2.2. Totals may not add up to 100 percent due to rounding.

1 Based on the preliminary information provided by the project applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by the SCAQMD of construction equipment and phasing for comparable projects.

2 Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.

3 Incorporates Mitigation Measure AQ-1, which requires the use of interior paint with 0 g/L VOC content and exterior paint with 50 g/L VOC content.

Impact 5.1-3

As shown in Table 5.1-17, Maximum Daily Operational Phase Regional Emissions – Mitigated, implementation of Mitigation Measure AQ-2 would reduce operational-related NO_x emissions; however, NO_X emissions would continue to exceed the SCAQMD's regional significance threshold for NO_x. Mitigation Measure AQ-2 requires that the forklifts operating at the warehouse buildings be powered by electricity or alternative fuels instead of diesel fuel. Mitigation Measures AQ-3 through AQ-6 would reduce project-related emissions to the extent feasible. However, these measures would not substantially reduce project-related mobile source criteria air pollutant emissions. Mobile source emissions are regulated by state and federal emissions and fuel use standards and are outside of the control of the project applicant, subsequent tenants, and the City of Industry. No additional mitigation measures that are feasible for the project applicant to implement and the City of Industry to enforce and that have a proportional nexus to the project's impact are available to substantially reduce the project's mobile source criteria air pollutant emissions.

Though the mitigation measures above would reduce emissions to the extent feasible, NO_X emissions would continue to exceed the SCAQMD's regional construction significance threshold, and project and cumulative impacts would be significant and unavoidable.

Table 5.1-17 Maximum Daily Operational Phase Regional Emissions – Mitigated

Source	Criteria Air Pollutants (lbs/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	19	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Transportation[1]	14	116	182	1	27	8
Off-Road[2]	9	16	15	<1	<1	<1
Truck Idling[3]	1	9	7	<1	<1	<1
Total Emissions	43	142	204	1	27	9
SCAQMD Regional Threshold	55	55	550	150	150	55
Exceeds Regional Threshold?	No	Yes	No	No	No	No

Source: CalEEMod Version 2013.2.2. Highest winter or summer emissions. Totals may not add up to 100 percent due to rounding.
Bold: Exceeds threshold.
1 Transportation emissions based on truck trip generation rates and fleet mix provided by RK Engineering Group, Inc. Truck trip length and passenger vehicle trip length for the City of Industry is based on the SCAG RTP model for model year 2020 provided by Iteris. Modeling assumes trucks idle for 15 minutes on-site.
2 Incorporates Mitigation Measure AQ-2, which requires electric-powered or alternative-fuel off-road equipment to be utilized at the warehouse buildings.
3. Truck idling is based on EMFAC2014 idle emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT) for the buildout year (2017), and assumes 15 minutes of idling per truck.

Impact 5.1-4

As shown in Table 5.1-18, Health Risk Assessment Results – Mitigated, implementation of Mitigation Measure AQ-2 would reduce operational-related TAC emissions, and the incremental cancer risk for the MER would be 0.54 in a million. Mitigation Measure AQ-2 requires the forklifts operating at the warehouse buildings to be electric-powered or alternative-fueled instead of diesel-powered. In comparison to the significance threshold of 10 in a million, carcinogenic risks would not exceed the threshold value for off-site residents. Therefore, with incorporation of mitigation, impacts from sensitive receptor exposures to pollutant concentrations would be less than significant.

Table 5.1-18 Health Risk Assessment Results – Mitigated

Sources	Cancer Risk (per million) [1]	Chronic Hazard Index	Acute Hazard Index
Truck Running[2]	0.08	<0.001	<0.001
Truck Idling[3]	0.46	<0.001	<0.001
Off-Road Sources[4]	<0.001	0.001	0.060
Total – All Sources	0.54	0.002	0.060
Significance Threshold	10.0	1.0	1.0
Exceeds Threshold?	No	No	No

Sources: Lakes AERMOD View 9.1.0, 2015; CARB 2015c
1 Residential cancer risks were determined using the high-end residency exposure duration of 30 years (OEHHA 2015). For informational purposes, the maximum 70-year lifetime and 9-year average residency time cancer risks were calculated and are provided in Appendix D.
2 Truck running is based on EMFAC2014 running emission rates for medium duty vehicles (MDV), light-heavy duty trucks 1 (LHDT1), light-heavy duty trucks 2 (LHDT2), medium-heavy duty trucks (MHDT), and heavy-heavy duty trucks (HHDT).
3 Truck idling is based on EMFAC2014 idle emission rates for medium duty vehicles (MDV), light-heavy duty trucks 1 (LHDT1), light-heavy duty trucks 2 (LHDT2), medium-heavy duty trucks (MHDT), and heavy-heavy duty trucks (HHDT), and assumes 15 minutes of idling per truck.
4 Incorporates Mitigation Measure AQ-2, which requires electric-powered or alternative fuel off-road equipment to be utilized at the warehouse buildings.

5.1.9 References

BAAQMD (Bay Area Air Quality Management District). 2011. California Environmental Quality Act Air Quality Guidelines.

Caltrans (California Department of Transportation). 1997. Transportation Project-Level Carbon Monoxide Protocol. UCD-ITS-RR-97-21.

CAPCOA (California Air Pollution Control Officers Association). 2009. Health Risk Assessments for Proposed Land Use Projects.

———. 2013. California Emissions Estimator Model (CalEEMod) Version 2013.2.2.

CARB (California Air Resources Board). 1998. The Report on Diesel Exhaust. http://www.arb.ca.gov/toxics/dieseltac/de-fnds.htm.

———. 1999. Final Staff Report: Update to the Toxic Air Contaminant List.

———. 2005. Air Quality and Land Use Handbook: A Community Health Perspective.

———. 2013. Proposed 2013 Amendments to Area Designations for State Ambient Air Quality Standards. http://www.arb.ca.gov/regact/2013/area13/area13isor.pdf.

———. 2014. Area Designation Maps/State and National. http://www.arb.ca.gov/desig/desig.htm.

———. 2015a. Air Pollution Data Monitoring Cards (2010, 2011, 2012, 2013, and 2014), Accessed June 18. http://www.arb.ca.gov/adam/topfour/topfour1.php.

———. 2015b. Ambient Air Quality Standards. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

———. 2015c. Hotspots Analysis and Report Program (HARP), Risk Assessment Standalone Tool (RAST), Version 2.

EPA (US Environmental Protection Agency). 1996. National Human Activities Pattern Survey: A Resource for Assessing Exposure to Environmental Pollutants. National Exposure Research Laboratory.

———. 2013. The Green Book Nonattainment Areas for Criteria Air Pollutants. http://www.epa.gov/air/oaqps/greenbk/index.html.

———. 2015a. Six Common Air Pollutants. http://www3.epa.gov/airquality/urbanair/.

———. 2015b. National Ambient Air Quality Standards for Ozone. http://www3.epa.gov/ozonepollution/pdfs/20151001fr.pdf.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

SCAG (Southern California Association of Governments). 2012. 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy. http://rtpscs.scag.ca.gov/Pages/default.aspx.

SCAQMD (South Coast Air Quality Management District). 1993. California Environmental Quality Act Air Quality Handbook.

———. 2005. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning.

———. 2006. Final Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds.

———. 2008a. Final Localized Significance Threshold Methodology.

———. 2008b. Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III). http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iii.

———. 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds.

———. 2012a. Revised Draft: 2012 Lead State Implementation Plan, Los Angeles County. http://www.aqmd.gov/aqmp/Lead_SIP/RvsdDraftLeadSIP.pdf.

———. 2013. 2012 Final Air Quality Management Plan. http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan.

———. 2015a. Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV) Final Report. http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7.

———. 2015b. SCAQMD Air Quality Significance Thresholds. Revised March 2015. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

———. 2015c. Supplement to 24-hour PM2.5 State Implementation Plan for South Coast Air Basin. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-feb6-022.pdf?sfvrsn=2.

———. 2015d. 2016 Air Quality Management Plan Fact Sheet. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/factsheet-2016-aqmp.pdf?sfvrsn=2.

———. 2015e. Health Effects of Air Pollution. http://www.aqmd.gov/home/library/public-information/publications.

———. 2015f. Blueprint for Clean Air White Paper. 2017 AQMP Whitepaper. http://www.aqmd.gov/home/about/groups-committees/aqmp-advisory-group/2016-aqmp-white-papers.

———. 2015g. Air Quality Analysis Handbook. Updates to CEQA Air Quality Handbook. http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.

WRCC (Western Regional Climate Center). 2015a. Western US Climate Summaries – Pomona Fairplex Station (Station ID No. 047050). Accessed December 21. http://www.wrcc.dri.edu/summary/Climsmsca.html.

———. 2015b. Western US Climate Summaries – Walnut NI FC102C Station (Station ID No. 049431). Accessed December 21. http://www.wrcc.dri.edu/summary/Climsmsca.html.

This page intentionally left blank.

5.2 CULTURAL RESOURCES

5.2 CULTURAL RESOURCES

Cultural resources comprise paleontological, archaeological, and historical resources. Paleontological resources are the fossilized remains of plants and animals. Archaeology is the branch of paleontology that studies human artifacts, such as places, objects, and settlements that reflect group or individual religious, cultural, or everyday activities. Historical resources include sites, structures, objects, or places that are normally at least 50 years old and are significant for their engineering, architecture, cultural use or association, etc. This section evaluates the potential for implementation of the proposed project to impact cultural resources in the City of Industry. The analysis in this section is based, in part, on the following information:

- Paleontological Records Search for the Proposed Warehouse Building Project, in the City of Industry, Los Angeles County (Natural History Museum 2015)
- Cultural Records Search for Proposed Warehouse Building Project, in the City of Industry, Los Angeles (SCCIC 2016)

Complete copies of these records search results are included in Appendix E, Cultural Records Search Results.

5.2.1 Environmental Setting

5.2.1.1 REGULATORY FRAMEWORK

Federal and State Laws and Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) coordinates public and private efforts to identify, evaluate, and protect the nation's historic and archaeological resources. The act authorized the National Register of Historic Places, which lists districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

Section 106, Protection of Historic Properties, of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. Section 106 review ensures that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process with assistance from state historic preservation offices.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites on federal and Indian lands.

Native American Graves Protection and Repatriation Act

This act is a federal law passed in 1990 that mandates museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants or culturally affiliated Indian tribes.

California Public Resources Code

Archaeological, paleontological, and historical sites are protected under a wide variety of state policies and regulations in the California Public Resources Code (PRC). In addition, cultural and paleontological resources are recognized as nonrenewable resources and receive protection under the PRC and the California Environmental Quality Act (CEQA).

PRC Sections 5020 to 5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for designating State Historical Landmarks and Historical Points of Interest.

PRC Sections 5079–5079.65 define the functions and duties of the Office of Historic Preservation (OHP), which administers federal- and state-mandated historic preservation programs in California as well as the California Heritage Fund.

PRC Sections 5097.9–5097.991 provide protection to Native American historical and cultural resources and sacred sites, identify the powers and duties of the Native American Heritage Commission, require that descendants be notified when Native American human remains are discovered, and provide for treatment and disposition of human remains and associated grave goods.

Assembly Bill 52

Assembly Bill (AB) 52, the Native American Historic Resource Protection Act, is applicable to CEQA projects where either the notice of preparation or the notice of intent is filed after July 1, 2015. AB 52 requires meaningful consultation with California Native American tribes on potential impacts to tribal cultural resources, as defined in PRC Section 21074. A tribe must submit a written request to the relevant lead agency if it wishes to be notified of projects within its traditionally and culturally affiliated area. The lead agency must provide written, formal notification to the tribes that have requested it within 14 days of determining that a project application is complete or deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must being the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either (1) the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per PRC Section 21082.3(c).

5.2.1.2 CULTURAL SETTING

A cultural records search for the project was conducted through the South Central Coastal Information Center; the search included the project site and the surrounding 0.5-mile radius. The search included a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources, the National Register of Historic Places, and the California State Historic Properties Directory listings were reviewed for the project site.

Historical Resources

Historical resources are buildings, structures, objects, sites, and districts of significance in history, archaeology, architecture, and culture. These resources include intact structures of any type that are 50 years or more of age. No built-environment historical resources were identified on the project site per the National Register of Historic Places, California Register of Historical Resources, and the City's General Plan.

There are two designated historical resources located in the City of Industry, both of which are listed on the National Register of Historic Places (NRHP): the Workman and Temple Family Homestead Museum at 15415 Don Julian Road; and the John A. Rowland House at 16021 E. Gale Avenue. Another historical resource, the A. T. Currier House, was originally located in the city near Baker Avenue but was relocated to the Phillips Mansion property on Pomona Boulevard in Pomona for better preservation (Industry 2014a). No other designated historic resources have been identified, although there is the potential for other structures older than 50 years old to exist in the city that have not yet been evaluated for historic significance.

The closest feature to the project site that was identified in the historic records search is the Southern Pacific/Union Pacific Railroad located north of San Jose Creek, which was listed in the OHP Historic Property Directory. However, this railroad was determined ineligible for the NRHP by consensus through Section 106 of the NHPA process.

Archaeological Resources

Archaeological resources are the physical remains of past human activities and can be either prehistoric or historic. Archaeological sites contain significant evidence of human activity. Generally a site is defined by a significant accumulation or presence of food remains, tools, waste from the manufacturing of tools, concentrations or alignments of stones, modification of rock surfaces, unusual discoloration or accumulation of soil, and/or human skeletal remains. One archaeological site was identified within 0.5 mile of the project site, although the records search did not identify the actual location due to the sensitive nature of cultural resources. Other nearby documented archaeological sites in the project vicinity include the La Puente Downtown Specific Plan area, La Puente High School, and the Industry Business Center, approximately 1.5, 1.8, and 5 miles from the project site, respectively. La Puente and vicinity were previously known as the Ahwiinga community by the Gabrieleño tribal group.

Paleontological Resources

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These are valued for the information they yield about the history of the earth and its past ecological settings. There are two types of resources: vertebrate and invertebrate. These resources are found in geologic strata, typically sedimentary formations, conducive to their preservation. Paleontological sites are areas that show evidence of prehuman activity. Often they are simply small outcroppings visible on the surface or sites encountered during grading. While the sites are important indications, it is the geologic formations that are the most important, since they may contain important fossils. Potentially sensitive areas for the presence of paleontological resources are based on the underlying geologic formation. No known or significant paleontological resources have been discovered within the City of Industry's boundaries.

Surface deposits in the project area consist of younger Quaternary alluvium, derived predominantly as fluvial deposits from San Jose Creek that flows to the northeast. These younger Quaternary deposits typically do not contain significant vertebrate fossils in the uppermost layers, but they are underlain at relatively shallow depth

by older sedimentary deposits that may contain vertebrate fossils. The closest identified vertebrate locality from the project site is in the city of Chino Hills at a depth of 15 to 20 feet below the surface and in Commerce at 11 to 34 feet below grade.

The surrounding elevated terrain has exposures of the marine late Miocene Puente Formation (also referred to as the Monterey Formation) that probably underlie the Quaternary alluvium in the project area. The vertebrate fossil localities in the Puente Formation were found in the area between the Pomona Freeway and Colima Road and near Colima and Fullerton Roads in the City of Industry.

5.2.2 Thresholds of Significance

CEQA Guidelines Section 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Generally, a resource is considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources, which are:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated the with lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history. (PRC Section 5024.1; 14 California Code of Regulations Section 4852)

The fact that a resource is not listed in the California Register of Historical Resources, not determined to be eligible for listing, or not included in a local register of historical resources does not preclude a lead agency from determining that it may be a historical resource.

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

C-1 Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5.

C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

C-3 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

C-4 Disturb any human remains, including those interred outside of formal cemeteries.

C-5 Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. (Interim checklist question for AB 52 compliance.)

The Initial Study, included as Appendix A, substantiates that impacts associated with the following threshold would be less than significant:

- Threshold C-4

Therefore, this impact is not addressed in the following analysis.

5.2.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.2-1: Development of the project would not impact an identified historic resource. [Threshold C-1]

Impact Analysis: The project site is currently vacant and contains no above-grade structures, with the exception of a billboard at the corner of Railroad Street and Azusa Avenue, and is covered with miscellaneous road base and cement paved areas. There are a few trees lining the perimeter of the project site as well as miscellaneous ground cover throughout. Because the site is vacant, it does not contain any structures that are 50 years or more of age, nor is the site associated with any significant history. No built-environment historical resources were identified on the project site per the National Register of Historic Places, California Register of Historical Resources, and the City's General Plan. No built environment was developed on-site until 1964, at which time industrial warehouse buildings were constructed; however, these buildings were demolished sometime between the late 1990s and the early 2000s.

Although one built environment feature, the Southern Pacific/Union Pacific Railroad north of San Jose Creek, was identified in the OHP Historic Property Directory, this railroad was determined ineligible for the NRHP by consensus through the Section 106 process, and no impact to this railroad would occur due to project implementation. Therefore, due to the absence of historical resources in the project area, project development would not damage any identified historical resources, and impacts would not be significant.

Impact 5.2-2: Development of the project site has the potential to result in adverse archaeological resources impacts. [Threshold C-2]

Impact Analysis: A cultural records search was performed through the South Central Costal Information Center (Appendix E), and no documented archaeological resources were identified on the project site. However, there have been 21 reports and studies within a half-mile radius of the project site, and one off-site archaeological resource was identified. Its exact location was not released due to the sensitive nature of cultural resources. Previous surveys conducted off-site within a half-mile radius of the project site have identified Native American artifacts, freshwater resources (San Jose Creek), natural tar seeps, and farmhouses from 1924 or earlier. A consultation with a Gabrieleño Band of Mission Indians-Kizh Nation representative also indicated that a number of tribal villages occupied the project area in the past, making the project area highly sensitive for tribal resources.

The project site is currently vacant and contains no above-grade structures, with the exception of a billboard at the corner of Railroad Street and Azusa Avenue, and is covered with miscellaneous road base and cement paved areas. Grading associated with past land uses on the project site has occurred previously, and no cultural resources have been unearthed on the site thus far. However, due to the indicators of potential sensitivity as described above, the proposed project has the potential to affect previously undiscovered archaeological resources during ground-disturbing activities. Therefore, a mitigation measure has been incorporated to ensure that proper procedures are followed during grading and that discovery of archaeological resources is handled

in accordance with Section 21083.2 of the CEQA Guidelines. Section 21083.2(g) states that 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:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Nonunique archaeological resource means an archaeological artifact, object, or site which does not meet the criteria listed above, and a nonunique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it chooses. The project site is considered sensitive for subsurface archaeological resources, and archaeological resources monitoring during grading would be necessary to ensure that impacts are minimized. With mitigation, potential impacts to archaeological resources would be reduced to a less than significant level.

Impact 5.2-3: The proposed project could impact subsurface paleontological resources or a unique geologic feature. [Threshold C-3]

Impact Analysis: According to the records search conducted for the project site, shallow excavations in the younger Quaternary alluvium exposed through the proposed project area are unlikely to encounter significant vertebrate fossils. Excavation for building pads and foundations are anticipated to be no deeper than 8 feet; however, deeper excavations that extend into older sedimentary deposits could uncover fossil vertebrate remains. Therefore, a mitigation measure has been incorporated to ensure that impacts to subsurface paleontological resources or unique geologic features are reduced to a less than significant level.

Impact 5.2-4: Development of the project site has the potential to result in adverse tribal cultural resources impacts. [Threshold C-5]

Impact Analysis: In compliance with AB 52, the City of Industry has received requests from two California Native American tribes to be notified of projects for which the City is the lead agency under CEQA.

The Soboba Band of Luiseño Indians was notified of the proposed project on August 5, 2015, and a response was received from Cultural Resource Director Joseph Ontiveros that the Soboba Band does not have any specific concerns regarding known cultural resources in the specified area encompassed by the project. He further indicated that the Soboba Band wishes to defer to Gabrieleño tribal consultants, who are closer to the project site. The Gabrieleño Band of Mission Indians-Kizh Nation was also notified of the proposed project on August 5, 2015, and a response was received from Andrew Salas. He indicated that the areas around and near the project site are known settlement areas for Native American villages and requested that ground-disturbing activities be monitored.

Because the proposed project does not include a General Plan amendment, no tribal consultation pursuant to Senate Bill (SB) 18 and Government Code 65352.3 was initiated. The proposed project has complied with the provisions of AB 52, and no significant impacts have been identified after mitigation.

PRC Section 21074 defines tribal cultural resources as (1) listed or determined to be eligible for listing on the national, state, or local register of historic resources; or (2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource. In the second instance, the lead agency must determine that the resource meets the criteria for listing in the California Register of Historical Resources pursuant to PRC Section 5024.1. The project site does not contain built structures but is considered sensitive for subsurface tribal cultural resources. Therefore, appropriate monitoring would be necessary during ground-disturbing activities to ensure that the proposed project does not cause a substantial adverse change in the significance of a tribal cultural resource. With mitigation, potential impacts to tribal resources would be reduced to a less than significant level.

5.2.4 Cumulative Impacts

The area considered for cumulative impacts to cultural resources is the entirety of the City of Industry. Other projects in the city could involve actions that damage historical, archaeological, tribal, and/or paleontological resources specific to those project sites. However, other projects would also be subject to CEQA review, including studies of historical, archaeological, and paleontological resources that are present or could be present on-site. Where significant or potentially significant impacts are identified, implementation of all feasible mitigation measures would be required to reduce impacts. Therefore, cumulative impacts to cultural resources would be less than significant after mitigation. After implementation of the mitigation measures below, impacts of the proposed project on cultural resources would not be cumulatively considerable.

5.2.5 Existing Regulations and Standard Conditions

Federal

- US Code, Title 16, Sections 470 et seq.: National Historic Preservation Act
- US Code, Title 16, Sections 470aa et seq.: Archaeological Resources Protection Act
- US Code, Title 25, Sections 3001 et seq.: Native American Graves Protection and Repatriation Act

State

- California Public Resources Code Sections 5020–5029.5: Authorized State Historical Resources Commission
- California Public Resources Code Sections 5079–5079.65: Authorized Office of Historic Preservation
- California Public Resources Code Sections 5097.9–5097.99: Protections for Native American historical and cultural resources and sacred sites; authorized Native American Heritage Commission; prescribes responsibilities respecting discoveries of Native American human remains
- California Public Resources Code Sections 21073 et seq. (AB 52): Requires analysis of impacts to tribal cultural resources under CEQA

5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.2-1 would be less than significant.

Without mitigation, the following impacts would be potentially significant:

Impact 5.2-2 Development of the project site has the potential to result in adverse archaeological resources impacts.

Impact 5.2-3 The proposed project could impact subsurface paleontological resources or a unique geologic feature.

Impact 5.2-4 Development of the project site has the potential to result in adverse tribal cultural resources impacts.

5.2.7 Mitigation Measures

Impact 5.2-2

CUL-1 Prior to the issuance of the first grading permit and/or action that would permit disturbance to the project site, the project developer/applicant shall retain a qualified archaeological monitor to observe grading activities and to salvage and catalogue archaeological resources, including tribal resources, as necessary. The qualified archaeological monitor shall be retained in consultation with the Gabrieleño tribal group. The qualified archaeological monitor and the qualified paleontological monitor required under Mitigation Measure CUL-2 can be the same person. The qualified monitor shall be invited to be present at the pregrading conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the construction contractor, procedures for temporary halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts, as appropriate.

Should archaeological resources, including tribal resources, be found during ground-disturbing activities, the qualified monitor shall first determine whether the resource is a unique archaeological resource pursuant to Section 21083.2(g) of the California Public Resources Code (PRC) or a historical resource pursuant to Section 15064.5(a) of the State CEQA Guidelines (14 California Code of Regulations) and consult with a representative of the Gabrieleño Band of Mission Indians-Kizh Nation and the City of Industry. Once the determination is made pursuant to CEQA Guidelines Section 21083.2, the appropriate actions shall be taken per the appropriate sections of the regulations to ensure impacts are reduced to a less than significant level. During the monitoring in the field, the City of Industry Director of Development Services and Administration shall have the authority to resolve any disputes between the developer/contractor and the monitor.

Impact 5.2-3

CUL-2 Prior to the beginning of ground disturbances, the project applicant/developer shall retain a qualified paleontologist to monitor ground-disturbing activities that occur in older Quaternary deposits during ground excavation. Before ground-disturbing activities begin, a qualified paleontologist shall prepare a monitoring plan specifying the frequency, duration, and methods of monitoring. The qualified paleontological monitor and the qualified archaeological monitor required under Mitigation Measure CUL-1 can be the same person. Sediment samples shall be collected in older Quaternary deposits and processed to determine the small-fossil potential in the project site, and any fossils recovered during mitigation shall be deposited in an

accredited and permanent scientific institution. During field monitoring, the City of Industry Director of Development Services and Administration shall have the authority to resolve any disputes between the developer/contractor and the monitor.

Impact 5.2-4

See Mitigation Measure CUL-1.

5.2.8 Level of Significance After Mitigation

The mitigation measures would reduce potential impacts to archaeological, paleontological, and tribal resources to a level that is less than significant. Therefore, no significant unavoidable adverse impacts to cultural resources would remain.

5.2.9 References

California Office of Historic Preservation. 2011. California Historical Landmarks: Los Angeles. http://ohp.parks.ca.gov/?page_id=21427.

Industry, City of. 2014a. 2014 General Plan. Adopted June 12, 2014.

———. 2014b. City of Industry General Plan Update EIR (State Clearinghouse No. 2011031090).

Natural History Museum. 2015. Paleontological Records Search for the Proposed Warehouse Building Project, in the City of Industry, Los Angeles County.

NPS (National Park Service, US Department of the Interior). 2010. National Register of Historic Places. http://www.nps.gov/nr/.

SCCIC (South Central Coastal Information Center, California State University, Fullerton). 2016. Cultural Records Search for Proposed Warehouse Building Project, in the City of Industry, Los Angeles.

5.3 Greenhouse Gas Emissions

5.3 GREENHOUSE GAS EMISSIONS

This section evaluates the potential for the implementation of the proposed project to cumulatively contribute to greenhouse gas (GHG) emissions. Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate change impacts of a project are considered on a cumulative basis. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). Information on trip generation is from the traffic impact analysis prepared by RK Engineering Group, Inc. (see Appendix H), as modeled using the California Emissions Estimator Model (CalEEMod), Version 2013.2.2. The GHG emissions modeling for construction and operational phases is included in Appendix C.

5.3.1 Environmental Setting

5.3.1.1 GREENHOUSE GASES AND CLIMATE CHANGE

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed in the twentieth and twenty-first centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).[1] The major GHGs are briefly described below.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are

[1] Water vapor is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, because it is considered part of the feedback loop rather than a primary cause of change. Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2014). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.

- ***Chlorofluorocarbons (CFCs)*** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down the ozone layer. These gases are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

- ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to ozone-depleting substances. In addition, PFCs are emitted as byproducts of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high GWP.

- ***Sulfur hexafluoride (SF_6)*** is a colorless gas soluble in alcohol and ether, and slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

- ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although they are ozone-depleting substances, they are less potent than CFCs. They have been introduced as temporary replacements for CFCs.

- ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs. (IPCC 2001; EPA 2014)

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high GWP gases. The global warming potentials of GHG emissions are shown in Table 5.3-1, GHG Emissions and Their Relative Global Warming Potential Compared to CO_2. The GWP is used to convert greenhouse gases to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect.[2] For example, under the IPCC's Second Assessment Report GWP values for CH_4, a project that generates 10 metric tons (MT) of CH_4 would be equivalent to 210 MT of CO_2.

Table 5.3-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Second Assessment Report Atmospheric Lifetime (years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO_2[1]	Fourth Assessment Report Global Warming Potential Relative to CO_2[1]
Carbon dioxide (CO_2)	50 to 200	50 to 200	1	1
Methane[2] (CH_4)	12 (±3)	12	21	25
Nitrous oxide (N_2O)	120	114	310	298
Hydrofluorocarbons				
HFC-23	264	270	11,700	14,800

[2] CO_2-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Table 5.3-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Second Assessment Report Atmospheric Lifetime (years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO_2[1]	Fourth Assessment Report Global Warming Potential Relative to CO_2[1]
HFC-32	5.6	4.9	650	675
HFC-125	32.6	29	2,800	3,500
HFC-134a	14.6	14	1,300	1,430
HFC-143a	48.3	52	3,800	4,470
HFC-152a	1.5	1.4	140	124
HFC-227ea	36.5	34.2	2,900	3,220
HFC-236fa	209	240	6,300	9,810
HFC-4310mee	17.1	15.9	1,300	1,030
Perfluoromethane: CF_4	50,000	50,000	6,500	7,390
Perfluoroethane: C_2F_6	10,000	10,000	9,200	12,200
Perfluorobutane: C_4F_{10}	2,600	NA	7,000	8,860
Perfluoro-2-methylpentane: C_6F_{14}	3,200	NA	7,400	9,300
Sulfur Hexafluoride (SF_6)	3,200	NA	23,900	22,800

Source: IPCC 2007; 2013
Note: The IPCC has published updated global warming potential (GWP) values in its Fifth Assessment Report (2013) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2 (radiative forcing is the difference of energy from sunlight received by the earth and radiated back into space). However, GWP values identified in the Second Assessment Report are still used by the SCAQMD to maintain consistency in GHG emissions modeling. In addition, the 2008 Scoping Plan was based on the GWP values in the Second Assessment Report.
[1] Based on 100-year time horizon of the GWP of the air pollutant relative to CO_2.
[2] The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

California's GHG Sources and Relative Contribution

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors (CARB 2015). California is a significant emitter of CO_2e in the world and produced 459 million gross metric tons of CO_2e in 2013 (CARB 2015). In the state, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction (CARB 2015). 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. CO_2 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 carbon dioxide from the atmosphere.

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the twentieth century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the earth's atmosphere that is attributable to human activities. The amount of CO_2 in the atmosphere has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming

at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the earth's temperature are also hard to predict. Projections of climate change depend heavily on future human activity. Therefore, climate models are based on different emission scenarios that account for historic trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in frequency of warm spells/heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Areas affected by drought increases.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

Potential Climate Change Impacts for California

Observed changes over the last several decades across the western United States reveal clear signals of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada. By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1–8.6°F, depending on emissions levels (California Climate Change Center 2012).

In California and western North America, observations of the climate have shown a trend toward warmer winter and spring temperatures; a smaller fraction of precipitation falling as snow; a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones; a shift in the timing of snowmelt of 5 to 30 days earlier in the spring; and a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). According to the California Climate Action Team—a committee of state agency secretaries and the heads of agencies, boards, and departments, led by the Secretary of the California Environmental Protection Agency—even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.3-1), and the inertia of the earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 5.3-2, Summary of GHG Emissions Risks to California, and include impacts

to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy. Specific climate change impacts that could affect the project include health impacts from a deterioration in air quality, water resources impacts from a reduction in water supply, and increased energy demand.

Table 5.3-2 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health	• Heat waves will be more frequent, hotter, and longer • Fewer extremely cold nights • Poor air quality made worse • Higher temperatures increase ground-level ozone levels
Water Resources	• Decreasing Sierra Nevada snowpack • Challenges in securing adequate water supply • Potential reduction in hydropower • Loss of winter recreation
Agriculture	• Increasing temperature • Increasing threats from pests and pathogens • Expanded ranges of agricultural weeds • Declining productivity • Irregular blooms and harvests
Coastal Sea Level	• Accelerated sea level rise • Increasing coastal floods • Shrinking beaches • Worsened impacts on infrastructure
Forests and Biological Resources	• Increased risk and severity of wildfires • Lengthening of the wildfire season • Movement of forest areas • Conversion of forest to grassland • Declining forest productivity • Increasing threats from pests and pathogens • Shifting vegetation and species distribution • Altered timing of migration and mating habits • Loss of sensitive or slow-moving species
Energy Demand	• Potential reduction in hydropower • Increased energy demand

Sources: California Climate Change Center 2012

Specific climate change impacts that could affect the project include those described below.

- **Water Resources Impacts.** By late in this century, all projections show drying, and half of the projections suggest 30-year average precipitation will decline by more than 10 percent below the historical average. This drying trend is caused by an apparent decline in the frequency of rain and snowfall. Even in projections with relatively small or no declines in precipitation, central and southern parts of the state can be expected to be drier from the warming effects alone—the spring snowpack will melt sooner, and the moisture contained in soils will evaporate during long dry summer months (California Climate Change Center 2012).

- **Wildfire Risks.** Earlier snowmelt, higher temperatures, and longer dry periods over a longer fire season will directly increase wildfire risk. Indirectly, wildfire risk will also be influenced by potential climate-related

changes in vegetation and ignition potential from lightning. Human activities will continue to be the biggest factor in ignition risk. The number of large fires statewide is estimated to increase from 58 percent to 128 percent above historical levels by 2085. Under the same emissions scenario, estimated burned area will increase by 57 percent to 169 percent, depending on location (California Climate Change Center 2012).

- **Health Impacts.** Many of the gravest threats to public health in California stem from the increase in extreme conditions, principally more frequent, more intense, and longer heat waves. Particular concern centers on the increasing tendency for multiple hot days in succession, and heat waves occurring simultaneously in several regions throughout the state. Public health could also be affected by climate change impacts on air quality, food production, the amount and quality of water supplies, energy pricing and availability, and the spread of infectious diseases. Higher temperatures also increase ground-level ozone levels. Furthermore, wildfires can increase particulate air pollution in the major air basins of California (California Climate Change Center 2012).

- **Increase Energy Demand.** Increases in average temperature and higher frequency of extreme heat events combined with new residential development across the state will drive up the demand for cooling in the increasingly hot and longer summer season and decrease demand for heating in the cooler season. Warmer, drier summers also increase system losses at natural gas plants (reduced efficiency in the electricity generation process at higher temperatures) and hydropower plants (lower reservoir levels). Transmission of electricity will also be affected by climate change. Transmission lines lose 7 percent to 8 percent of transmitting capacity in high temperatures while needing to transport greater loads. This means that more electricity needs to be produced to make up for the loss in capacity and the growing demand (California Climate Change Center 2012).

5.3.1.2 REGULATORY FRAMEWORK

This section describes the federal, state, and local regulations applicable to GHG emissions.

Federal Laws

The US Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 US Supreme Court decision that GHG emissions fit within the Clean Air Act (CAA) definition of air pollutants. The findings did not themselves impose any emission reduction requirements, but allowed the EPA to finalize the greenhouse gas standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the US Department of Transportation (EPA 2009).

To regulate GHGs from passenger vehicles, the EPA was required to issue an endangerment finding, which is a declaration identifying a threat to human health and welfare from a substance. The EPA's issuance of an endangerment finding is a necessary precondition under the Clean Air Act to regulatory action. The finding identifies emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and per SCAQMD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of greenhouse gas emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO_2 per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2010/2012)

The current Corporate Average Fuel Economy (CAFE) standards (for model years 2011–2016) incorporate stricter fuel economy requirements promulgated by the federal government and the State of California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon [mpg] by 2016). Rulemaking to adopt these new standards was completed in 2010. The State of California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in 2012 for model years 2017–2025, which will require a fleet average of 54.5 mpg in 2025.

EPA Regulation of Stationary Sources under the Clean Air Act (ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to the President's 2013 Climate Action Plan, the EPA will be directed to also develop regulations for existing stationary sources.

State Laws

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Executive Order B-30-15, Assembly Bill (AB) 32, and Senate Bill (SB) 375.

Executive Order S-03-05

Executive Order S-03-05, signed on June 1, 2005, set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Executive Order B-30-15

Executive Order B-30-15, signed on April 29, 2015, sets a goal of reducing GHG emissions in the state to 40 percent of 1990 levels by the year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act. AB 32 was passed by the California legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05.

CARB 2008 Scoping Plan

CARB adopted the final Scoping Plan on December 11, 2008. AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor greenhouse gas emissions levels for large stationary sources that generate more than 25,000 metric tons of CO_2e per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

The 2008 Scoping Plan identified that GHG emissions in California are anticipated to be approximately 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million metric tons) for the state. The 2020 target requires a total emissions reduction of 169 $MMTCO_2e$, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e., 28.5 percent of 596 $MMTCO_2e$) (CARB 2008).[3]

In 2012, four years after the release of the 2008 Scoping Plan, CARB updated the statewide GHG emissions inventory to reflect GHG emissions in light of the economic downturn and of measures not previously considered in the 2008 Scoping Plan baseline inventory. The updated forecast predicts emissions to be 545 $MMTCO_2e$ by 2020. The revised BAU 2020 forecast shows that the state would have to reduce GHG emissions by 21.7 percent from business as usual. The new inventory also identifies that if the updated 2020 forecast includes the reductions assumed from implementation of Pavley (26 $MMTCO_2e$ of reductions) and the state's 33 percent Renewables Portfolio Standard (RPS) (12 $MMTCO_2e$ of reductions), the forecast would be 507 $MMTCO_2e$ in 2020, and then an estimated 80 $MMTCO_2e$ of additional reductions are necessary to achieve the statewide emissions reduction by 2020, or a 15.7 percent of the projected emissions compared to business as usual in year 2020 (i.e., 15.7 percent of 507 $MMTCO_2e$) (CARB 2012b).

Key elements of CARB's greenhouse gas reduction plan that may be applicable to the project include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards (adopted and cycle updates in progress).
- Achieving a mix of 33 percent for energy generation from renewable sources (anticipated by 2020).
- Aligning with a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system for large stationary sources (adopted 2011).

[3] CARB defines business as usual in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets (several Sustainable Communities Strategies have been adopted).
- Adopting and implementing measures pursuant to state laws and policies, including California's clean car standards (amendments to the Pavley Standards adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).
- Creating target fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation (in progress).

Table 5.3-3, Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target, shows the proposed reductions from regulations and programs outlined in the 2008 Scoping Plan. Although local government operations were not accounted for in achieving the 2020 emissions reduction, CARB estimates that land use changes implemented by local governments that integrate jobs, housing, and services result in a reduction of 5 $MMTCO_2e$, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role that local governments play in the successful implementation of AB 32, CARB recommends GHG reduction goals of 15 percent of today's levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target.[4] Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer vehicle miles traveled (VMT) (CARB 2008).

[4] The Scoping Plan references a goal for local governments to reduce community GHG emissions by 15 percent from current (interpreted as 2008) levels by 2020, but it does not rely on local GHG reduction targets established by local governments to meet the state's GHG reduction target of AB 32.

Table 5.3-3 Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target

Recommended Reduction Measures	Reductions Counted toward 2020 Target of 169 MMT CO_2e	Percentage of Statewide 2020 Target
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy-Duty Vehicles	1.4	1%
High-Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations[2]	To Be Determined	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB 2008
Notes: The percentages in the right-hand column total more than 100 percent because the emissions reduction goal is 169 $MMTCO_2e$ and the Scoping Plan identifies 174 $MTCO_2e$ of emissions reductions strategies which are based on the IPCC's Second Assessment Report GWPs.
$MMTCO_2e$: million metric tons of CO_2e
[1] Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.
[2] According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO_2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 target.

First Update to the Scoping Plan

CARB recently completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan was adopted at the May 22, 2014, board hearing. The update defines CARB's climate change priorities for the next five years and lays the groundwork to reach post-2020 goals in Executive Orders S-3-05 and B-16-2012. The update includes the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants. The GHG target identified in the 2008 Scoping Plan is based on the IPCC's global warming potentials identified in the Second and Third Assessment Reports (see Table 5.5-1).

The IPCC's Fourth and Fifth Assessment Reports identified more recent GWP values based on the latest available science. CARB recalculated the 1990 GHG emission levels with the updated global warming potentials in the Fourth Assessment Report, and the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher, at 431 $MMTCO_2e$ (CARB 2014). CARB projected that statewide BAU emissions in 2020 would be approximately 509 million $MTCO_2e$.[5] Therefore, to achieve the AB 32 target of 431 million $MTCO_2e$ (i.e., 1990 emissions levels) by 2020, the state would need to reduce emissions by 78 million $MTCO_2e$ compared to BAU conditions, a reduction of 15.3 percent from business as usual in 2020 (CARB 2014).[6]

The update highlights California's progress toward meeting the near-term 2020 GHG emissions reduction goals defined in the original 2008 Scoping Plan. As identified in the Update to the Scoping Plan, California is on track to meet the goals of AB 32. However, the Update to the Scoping Plan also addresses the state's longer-term GHG goals in a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with, or exceeds, the trajectory created by statewide goals (CARB 2014).

According to the Update to the Scoping Plan, reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

Second Update to the Scoping Plan

Executive Order B-30-15 requires CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. According to CARB, the Scoping Plan will be updated by late 2016 to address the new 2030 interim target to achieve a 40 percent reduction below 1990 levels by 2030 (CARB 2015).

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish greenhouse gas emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction by 2035 (CARB 2010). SB 375 requires CARB to periodically update the targets, no later than every

[5] The BAU forecast includes GHG reductions from Pavley and the Renewables Portfolio Standard.

[6] If the GHG emissions reductions from Pavley I and the Renewable Electricity Standard are accounted for as part of the BAU scenario (30 million $MTCO_2e$ total), the state would need to reduce emissions by 108 million $MTCO_2e$, which is a 20 percent reduction from BAU.

eight years. CARB plans to propose updated targets for consideration in 2016, with the intent to make them effective in 2018. Sustainable communities strategies adopted in 2018 would be subject to the updated targets (CARB 2015).

The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

CARB is currently in the process of updating the next round of targets and methodology to comply with the requirement for updates every eight years. Considerations for the next round of targets include whether to change the nature or magnitude of the emissions reduction targets for each of the MPOs, and whether the target-setting methodology should account for advances in technologies that reduce emissions. Such changes in methodology would permit cities to account for emissions reductions from advances in cleaner fuels and vehicles and not only from land use and transportation planning strategies.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy

SB 375 requires each metropolitan planning organization to prepare a sustainable communities strategy in its regional transportation plan. For the SCAG region, the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted in April 2012 (SCAG 2012). The SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies that will achieve regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

SCAG recently released a draft of the 2016–2040 RTP/SCS, which projects that the SCAG region will meet or exceed the passenger vehicle per capita targets set in 2010 by CARB. Pursuant to the draft 2016–2040 RTP/SCS, SCAG anticipates lowering greenhouse gas emissions below 2005 levels by 8 percent by 2020, 18 percent by 2035, and 22 percent by 2040. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas, livable corridors, and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016).

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty autos to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017–2025 light-duty vehicles (see also the discussion on the update to the CAFE standards in the Federal Laws subsection, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission

vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the State set a new Low Carbon Fuel Standard (LCFS) for transportation fuels sold in California. Executive Order S-01-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Senate Bills 1078, 107, and X1-2, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the Renewables Portfolio Standard (RPS) established under Senate Bills 1078 and 107. Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SBX1-2). The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

SB 350 was signed into law in September 2015. The bill establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Executive Order B-16-2012

On March 23, 2012, the State identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

California Building Code: Building and Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2013 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. On May 31,

2012, the CEC adopted the 2013 Building and Energy Efficiency Standards, which went into effect on July 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features.

Most recently, the CEC adopted the 2016 Building and Energy Efficiency Standards. The 2016 Standards will continue to improve upon the current 2013 Standards for new construction of and additions and alterations to residential and nonresidential buildings. These standards will go into effect on January 1, 2017. Under the 2016 Standards, residential buildings are 28 percent more energy efficient than the 2013 Standards, and nonresidential buildings are 5 percent more energy efficient than the 2013 Standards.

The 2016 Standards will not achieve zero net energy. However, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 Standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California.

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as CALGreen) was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[7] The mandatory provisions of CALGreen became effective January 1, 2011, and were updated most recently in 2013.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as business as usual, they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

Solid Waste Regulations

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code Section 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects.

[7] The green building standards became mandatory in the 2010 edition of the code.

The act required the California Integrated Waste Management Board [now the California Department of Resources Recycling and Recovery (CalRecycle)] to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2013 California Green Building Standards Code also requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

Water Efficiency Regulations

The 20x2020 Water Conservation Plan was issued by the California Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed SBX7-7. SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the California Energy Commission to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Local Regulations

City of Industry Climate Action Plan

The City of Industry is in the process of preparing a Climate Action Plan (CAP). The CAP would guide the City of Industry toward a sustainable future that reduces GHG emissions from current levels, while promoting economic prosperity for present and future generations. Because the City of Industry has not yet adopted its Climate Action Plan, this DEIR does not incorporate the proposed CAP policies and principles in this analysis.

5.3.2 Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

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

South Coast Air Quality Management District

The SCAQMD has adopted a significance threshold of 10,000 $MTCO_2e$ per year for permitted (stationary) sources of GHG emissions for which the SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the SCAQMD has convened a GHG CEQA Significance Threshold Working Group. Based on the last Working Group meeting (Meeting No. 15) in September 2010, the SCAQMD identified a tiered approach for evaluating GHG emissions for development projects where the air district is not the lead agency:

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, the SCAQMD requires an assessment of GHG emissions. The SCAQMD has identified a "bright-line" screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types or the following land-use-specific thresholds: 1,400 $MTCO_2e$ for commercial projects, 3,500 $MTCO_2e$ for residential projects, or 3,000 $MTCO_2e$ for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal and therefore less than cumulatively considerable impact on GHG emissions:

- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.
- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

The SCAQMD has identified an efficiency target for projects that exceed the bright-line threshold: a 2020 efficiency target of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan-level analyses (e.g., general plans). Service population is defined as the sum of the residential and employment population of a project. The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.[8]

The buildout year of the proposed project is 2017. For the purpose of this project, if project-related emissions exceed the screening threshold of 3,000 $MTCO_2e$ per year, project emissions would be compared to the per capita target of 4.8 $MTCO_2e$ per year per service population. If the per capita efficiency target is exceeded, GHG emissions would be considered potentially significant in the absence of mitigation measures.

[8] The SCAQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

5.3.3 Environmental Impacts

Methodology

The analysis in this section is based on buildout of the proposed project as modeled using CalEEMod, Version 2013.2.2, for the following sectors:

- **Transportation:** GHG emissions are based on the information on trip generation from the traffic impact analysis (Appendix H) and average trip length for passenger vehicle, medium-duty trucks, and heavy-duty trucks in the city from the SCAG 2012 RTP for model year 2020 provided by Iteris for the city's community transportation emissions being conducted as part of the Climate Action Plan.

- **Solid Waste Disposal:** Indirect emissions from waste generation are based on the solid waste disposal rate in CalEEMod.

- **Water/Wastewater:** GHG emissions from this sector are associated with the embodied energy used to supply water, treat water, distribute water, and then treat wastewater and fugitive GHG emissions from wastewater treatment. Emissions are based on the water use and wastewater generation rates in CalEEMod.

- **Area Sources:** GHG emissions from this sector include equipment use on-site, truck idling, consumer products, and architectural coating. Truck idling emission rates are based on EMFAC2014, and on-site equipment use, consumer products, and architectural coatings are based on emission rates in CalEEMod. This analysis assumes that 1 propane-powered forklift and 11 diesel-powered forklifts operate on-site and 15 minutes of idling per truck. Industrial sources of emission that require a permit from the SCAQMD are not included in the plan-level inventory. The development application does not include refrigerated facilities; therefore, modeling does not include emissions associated with transport refrigeration units (TRUs).

- **Energy:** GHG emissions from this sector are from use of electricity and natural gas by the warehouse buildings. New buildings are assumed to comply with the 2013 Building and Energy Efficiency Standards, which are 30 percent more energy efficient for nonresidential buildings than the 2008 standards.

- **Construction:** GHG emissions are from construction-related vehicle and equipment use and are based on CalEEMod defaults in addition to past similar projects for the construction equipment mix and worker, vendor, and haul trips. Emissions are amortized over a 30-year period and included as part of the overall inventory.

Life-cycle emissions are not included in this analysis because not enough information is available for the proposed project, and therefore life-cycle GHG emissions would be speculative.[9] GHG modeling is included in Appendix C of this Draft EIR.

[9] Life-cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Natural Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions, found that life-cycle analysis was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.3-1: Development of the proposed project would result in a substantial increase of GHG emissions that would exceed the South Coast Air Quality Management District's significance criteria. [Threshold GHG-1]

Impact Analysis: Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

The proposed project would generate GHG emissions from vehicle trips generated by the project, energy use (indirectly from purchased electricity use and directly through fuel consumed for building heating), area sources (e.g., equipment used on-site, truck idling, consumer products, coatings), water/wastewater generation, and waste disposal. Annual GHG emissions were calculated for construction and operation of the project. Total construction emissions were amortized over 30 years and included in the emissions inventory to account for the short-term GHG emissions from the construction phase of the project. Project-related GHG emissions are shown in Table 5.3-4, Project-Related GHG Emissions.

Table 5.3-4 Project-Related GHG Emissions

Source	GHG Emissions, Year 2017	
	$MTCO_2e$	Percentage Change
Area	<1	<1%
Energy[1]	785	8%
Transportation	7,821	79%
Truck Idling[2]	235	2%
Off-Road	326	3%
Waste	263	3%
Water	496	5%
Construction-Amortized[3]	36	<1%
Total All Sectors	9,960	100%
SCAQMD Bright-Line Threshold ($MTCO_2e$)	3,000	NA
Exceeds Threshold?	Yes	NA
Project Efficiency Analysis		
Service Population (SP)[4]	997	NA
Project Efficiency ($MTCO_2e$/SP)	9.9	NA
SCAQMD Efficiency Metric Target ($MTCO_2e$/SP)	4.8	NA
Exceeds Efficiency Metric?	Yes	NA

Source: CalEEMod Version 2013.2.2
Note: Percentage changes from each source may equal 100 percent due to rounding.
1 For purposes of this GHG analysis, buildings on proposed land uses are assumed to comply with the 2013 Building and Energy Efficiency Standards, which are 30 percent more energy efficient than the 2008 Standards for nonresidential buildings. Includes applicable water efficiency improvements required under CALGreen.
2 Truck idling is based on EMFAC2014 idle emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT) for the buildout year (2017), and assumes 15 minutes of idling per truck.
3 Construction emissions are amortized over a 30-year project lifetime per recommended SCAQMD methodology.
4 Service population is based on the estimated employee per square feet of warehouse space and general office space according to the US Green Building Council (2008).

As shown in the table, the increase in GHG emissions of 9,960 $MTCO_2e$ annually from project-related operational activities would exceed the SCAQMD's bright-line screening threshold of 3,000 $MTCO_2e$. Therefore, GHG emissions impacts are evaluated based on the project efficiency. As identified in Table 5.3-4, the project would generate 9.9 $MTCO_2e$/year per service population (SP) and would exceed the SCAQMD efficiency metric target of 4.8 $MTCO_2e$/year/SP. Therefore, the proposed project's cumulative contribution to the long-term GHG emissions in the state would be considered potentially significant.

Impact 5.3-2: The proposed project would not conflict with SCAG's 2012–2035 RTP/SCS or CARB's Scoping Plan. [Threshold GHG-2]

Impact Analysis: Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan and SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy. A consistency analysis with these plans is presented below.

CARB Scoping Plan

In accordance with AB 32, CARB developed the 2008 Scoping Plan to outline the state's strategy to achieve 1990 level emissions by year 2020. The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

Since adoption of the 2008 Scoping Plan, state agencies have adopted programs identified in the plan, and the legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the LCFS, California Appliance Energy Efficiency regulations, California Building Standards (i.e., CALGreen and the Building and Energy Efficiency Standards), RPS, and changes in the Corporate Average Fuel Economy (CAFE) standards (e.g., Pavley I and California Advanced Clean Cars program [Pavley II]). The project GHG emissions shown in Table 5.3-4 include reductions associated with statewide strategies that have been adopted since AB 32. The proposed project would comply with these GHG emissions reduction measures, as they are statewide strategies. However, the Scoping Plan itself is not directly applicable to the proposed project. Therefore, the proposed project would not obstruct implementation of the CARB Scoping Plan, and impacts would be less than significant.

SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy

SCAG's 2012–2035 RTP/SCS was adopted April 4, 2012, and the draft 2016–2040 RTP/SCS was released in December 2015. The RTP/SCS identifies multimodal transportation investments, including bus rapid transit, light rail transit, heavy rail transit, commuter rail, high-speed rail, active transportation strategies (e.g., bikeways and sidewalks), transportation demand management strategies, transportation systems management, highway improvements (interchange improvements, high-occupancy vehicle lanes, high-occupancy toll lanes), arterial improvements, goods movement strategies, aviation and airport ground access improvements, and operations and maintenance to the existing multimodal transportation system.

The proposed project is a warehouse project that involves truck trips associated with the region's goods movement industry. SCAG supports a coordinated California goods movement system that accommodates growth in the throughput of freight to the region and nation in ways that support the region's economic vitality, attainment of clean air standards, and quality of life for communities. In support of this vision, the 2016–2040

RTP/SCS describes a goods movement system with regional initiatives and projects totaling $75 billion through 2040. The 2016–2040 RTP/SCS includes key initiatives, namely a comprehensive system of zero- and near-zero-emission freight corridors, alleviation of major bottlenecks, a rail corridor improvement package, and an environmental strategy to address emissions through both near-term initiatives and a long-term action plan for technology advancement. The following is the list of RTP/SCS goods movement strategies that are applicable to the proposed project:

- Regional Clean Freight Corridor System
  - Establishing a system of truck-only lanes extending from the San Pedro Bay Ports to downtown Los Angeles along Interstate 710, connecting to the State Route 60 east–west segment and finally reaching Interstate 15 in San Bernardino County.
- Truck Bottleneck Relief Strategy
  - Working to relieve the top 50 truck bottlenecks. Examples of bottleneck relief strategies include ramp metering, extension of merging lanes, ramp and interchange improvements, capacity improvements, and auxiliary lane additions.
- Good Movement Environmental Strategy and Action Plan
  - Reducing environmental impacts by supporting the deployment of commercially available low-emission trucks and locomotives.
  - Advancing technologies to implement a zero- and near zero-emission freight system.

The RTP/SCS also incorporates local land use projections and circulation networks from the cities' and counties' general plans. The projected regional development pattern, including location of land uses and residential densities in local general plans, when integrated with the proposed regional transportation network identified in the RTP/SCS, would reduce per capita passenger vehicle travel-related GHG emissions and achieve the passenger vehicle GHG reduction per capita targets for the SCAG region. The RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the RTP/SCS, but provides incentives for consistency for governments and developers. The proposed warehouse buildings are a permitted use under the City of Industry's General Plan land use designation of Industrial; hence, the project is consistent with the underlying General Plan land use designation and would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS.

The emissions associated with the proposed project are primarily associated with truck travel, and the proposed project would not hinder SCAG's strategies in the RTP/SCS. No impact would occur, and no mitigation measures are required.

5.3.4 Cumulative Impacts

Climate change is a global phenomenon that is cumulative by nature, as it is the result of combined worldwide contributions of GHGs to the atmosphere over many years. Therefore, the project-related significant direct impact is also a cumulative impact. GHG emissions would be emitted primarily from mobile sources. Implementation of the mitigation measures would reduce the operation-related GHG emissions, but it would not be enough to reduce the GHG emissions to below the SCAQMD bright-line or efficiency threshold. Therefore, operation of the project would result in cumulatively significant GHG impacts.

5.3.5 Existing Regulations and Standard Conditions

State

- AB 32: California Global Warming Solutions Act
- Sustainable Communities and Climate Protection Act (SB 375)
- Executive Order S-3-05 and Executive Order B-30-15: Greenhouse Gas Emission Reduction Targets
- Pavley Fuel Efficiency Standards (AB 1493)
- California Integrated Waste Management Act of 1989 (AB 939)
- California Mandatory Commercial Recycling Law (AB 341)
- California Advanced Clean Cars CARB/Low-Emission Vehicle Program – LEV III (Title 13 CCR)
- Heavy-Duty Vehicle Greenhouse Gas Emissions Reduction Measure (Title 17 CCR)
- Low Carbon Fuel Standard (Title 17 CCR)
- Title 24 California Code of Regulations, Part 6 (Building and Energy Efficiency Standards)
- Title 24 California Code of Regulations, Part 11 (California Green Building Code)
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards)
- Title 17 California Code of Regulations (Low Carbon Fuel Standard)
- California Water Conservation in Landscaping Act of 2006 (AB 1881)
- California Water Conservation Act of 2009 (SBX7-7)
- Statewide Retail Provider Emissions Performance Standards (SB 1368)
- Renewable Portfolio Standards (SB 1078, 701, and X1-2)

5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.3-2 would be less than significant.

Without mitigation, the following impact would be potentially significant:

Impact 5.3-1 Development of the proposed project would result in a substantial increase of GHG emissions that would exceed the South Coast Air Quality Management District's significance criteria. [Threshold GHG-1]

5.3.7 Mitigation Measures

Impact 5.3-1

GHG-1 Electricity for the buildings shall be offset through the installation of solar panels installed on the office component of the building structure.

GHG-2 Landscape plans shall incorporate trees near the facades of the buildings in locations where tree placement would assist with passive solar heating and cooling of the structures, while also avoiding interference with vehicle movements and building operations.

Additionally, the following air quality measures would reduce project-related GHG emissions:

AQ-2 Only electric-powered or alternative-fueled (e.g., propane, liquefied natural gas, compressed natural gas) off-road equipment, such as forklifts, shall be utilized for daily warehouse operations.

AQ-3 The project developer/applicant shall implement the following measures that are identified as voluntary measures in the 2013 California Green Building Standards Code (CALGreen Code), Appendix A5, Nonresidential Voluntary Measures.

1. The parking lot shall be marked in compliance with the CALGreen Code Section A5.106.5.1, which requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles. The designated parking stalls are required to be painted "Clean Air Vehicle" per CALGreen Code Table A5.106.5.1.2.

2. Changing/shower facilities shall be provided as specified in CALGreen Code Section A5.106.4.3.

3. Infrastructure in the parking lots shall be installed to support future electric vehicle charging. Installation shall be consistent with CALGreen Section A5.106.5.3.

AQ-4 Legible, durable, weatherproof 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 instructions for truck drivers to shut off engines when not in use, instructions for drivers of diesel trucks to restrict idling to no more than 3 minutes, and telephone numbers for the building facilities manager and CARB to report violations.

AQ-5 Signage shall be provided on-site to alert all truck drivers that operation of transport refrigeration units (TRUs) shall be limited to those powered by zero-emission sources and units connected to a local electric power source.

AQ-6 Tenants shall be notified about the availability of alternatively fueled cargo handling equipment, grant programs for diesel-fueled vehicle engine retrofit and/or replacement, designated truck parking locations in the City of Industry, access to alternative fueling stations proximate to the site that supply compressed natural gas, and the US Environmental Protection Agency's SmartWay program.

5.3.8 Level of Significance After Mitigation

Impact 5.3-1

As shown in Table 5.3-5, Project-Related GHG Emissions – Mitigated, implementation of Mitigation Measures GHG-1 and GHG-2 and AQ-2 through AQ-6 would reduce project-related GHG emissions to the extent feasible. However, these measures would not substantially reduce project-related mobile source GHG emissions (which comprise approximately 80 percent of the project's total GHG emissions). Mobile source emissions are regulated by state and federal emissions and fuel use standards and are outside of the control of the project applicant, subsequent tenants, and the City of Industry. No additional mitigation measures that are feasible for the project applicant to implement and the City of Industry to enforce and that have a proportional nexus to the project's impact are available to substantially reduce the project's mobile source GHG emissions. Therefore, project-related GHG emissions would continue to exceed the SCAQMD's bright-line and efficiency threshold, and impacts would be significant and unavoidable.

Table 5.3-5 Project-Related GHG Emissions – Mitigated

Source	GHG Emissions, Year 2017	
	$MTCO_2e$	Percentage Change
Area	<1	<1%
Energy[1]	785	8%
Transportation	7,821	80%
Truck Idling[2]	235	2%
Off-Road	172	2%
Waste	263	3%
Water	496	5%
Construction-Amortized[3]	36	<1%
Total All Sectors	9,806	100%
SCAQMD Bright-Line Threshold ($MTCO_2e$)	3,000	NA
Exceeds Threshold?	Yes	NA
Project Efficiency Analysis		
Service Population (SP)	997	NA
Project Efficiency ($MTCO_2e$/SP)	9.8	NA
SCAQMD Efficiency Metric Target ($MTCO_2e$/SP)	4.8	NA
Exceeds Efficiency Metric?	Yes	NA

Source: CalEEMod Version 2013.2.2
Note: Percentage changes from each source may not equal 100 percent due to rounding.
1 For purposes of this GHG analysis, buildings on proposed land uses are assumed to comply with the 2013 Building and Energy Efficiency Standards, which are 30 percent more energy efficient than the 2008 Standards for nonresidential buildings. Includes applicable water efficiency improvements required under CALGreen.
2 Truck idling is based on EMFAC2014 idle emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT) for the buildout year (2017), and assumes 15 minutes of idling per truck.
3 Construction emissions are amortized over a 30-year project lifetime per recommended SCAQMD methodology.

5.3.9 References

California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California.

CAPCOA (California Air Pollution Control Officers Association). 2009. Health Risk Assessments for Proposed Land Use Projects.

———. 2013. California Emissions Estimator Model (CalEEMod). Version 2013.2.2.

CARB (California Air Resources Board). 2008. Climate Change Proposed Scoping Plan: A Framework for Change.

———. 2010. Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.

———. 2012a. California Greenhouse Gas Inventory for 2000–2009: By Category as Defined by the Scoping Plan.

———. 2012b. Status of Scoping Plan Recommended Measures. http://www.arb.ca.gov/cc/scopingplan/status_of_scoping_plan_measures.pdf.

———. 2014. Proposed First Update to the Climate Change Scoping Plan: Building on the Framework. http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.

———. 2015. California Greenhouse Gas Inventory for 2000–2013: By Category as Defined by the Scoping Plan. http://www.arb.ca.gov/cc/inventory/data/data.htm.

CAT (California Climate Action Team). 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature.

———. 2006a. Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004. Report CEC-600-2006-013-SF.

———. 2006b. Our Changing Climate: Assessing the Risks to California. 2006 Biennial Report. California Climate Change Center. CEC-500-2006-077.

———. 2008. The Future Is Now: An Update on Climate Change Science, Impacts, and Response Options for California. CEC-500-2008-0077.

EPA (US Environmental Protection Agency). 2009. EPA: Greenhouse Gases Threaten Public Health and the Environment. Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity. http://yosemite.epa.gov/opa/admpress.nsf/0/08D11A451131BCA585257685005BF252.

———. 2014. Greenhouse Gas Emissions. http://www.epa.gov/climatechange/ghgemissions/gases.html.

IPCC (Intergovernmental Panel on Climate Change). 2001. Third Assessment Report: Climate Change 2001. New York: Cambridge University Press.

———. 2007. Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press.

———. 2013. Fifth Assessment Report: Climate Change 2014. New York: Cambridge University Press.

OPR (Governor's Office of Planning and Research). 2008. Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through CEQA Review. http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf.

SCAG (Southern California Association of Governments). 2012. 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). http://rtpscs.scag.ca.gov/Pages/default.aspx.

———. 2016. *Final 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*. April 8, 2016.

SCAQMD (South Coast Air Quality Management District). 2010. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group: Meeting 15. http://www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/sept29.html.

USGBC (US Green Building Council). 2008. Building Area per Employee by Business Type.

This page intentionally left blank.

5.4 Hazards and Hazardous Materials

5.4 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the potential impacts of the proposed project on human health and the environment due to exposure to hazardous materials or conditions associated with the project site, project construction, and project operations. Potential project impacts and appropriate mitigation measures or standard conditions are included as necessary. The analysis in this section is based, in part, on the following sources:

- Phase I Environmental Site Assessment and Additional Subsurface Assessment (Stantec 2014; Appendix F)
- Health Risk Assessment (PlaceWorks 2016; Appendix D)

Complete copies of these studies are included in the Appendices to this Draft EIR.

5.4.1 Environmental Setting

5.4.1.1 REGULATORY BACKGROUND

Federal and State Laws and Regulations

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 is the principal federal law that regulates the generation, management, transportation, and disposal of hazardous waste. Hazardous waste management includes the treatment, storage, and disposal of hazardous waste. Treatment is any process that changes the waste's physical, chemical, or biological character to reduce its potential as an environmental threat. Treatment can include neutralizing the waste, recovering energy or material resources from the waste, rendering it less hazardous, or making the waste safer to transport, dispose of, or store.

The RCRA gave the US Environmental Protection Agency (EPA) the authority to control hazardous waste from "cradle to grave," that is, from generation to ultimate disposal. The 1986 amendments to the act enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. It should be noted that the RCRA focuses only on active and future facilities and does not address abandoned or historical sites.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as Superfund, was enacted to protect water, air, and land resources from the risks created by past chemical disposal practices such as abandoned and historical hazardous waste sites. Through the act, the EPA was given power to seek out those parties responsible for any release and to compel appropriate cleanup activities. This federal law created a tax on the chemical and petroleum industries that went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA also enabled the revision of the National Contingency Plan, which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priority List (NPL) of sites, which are known as Superfund sites.

Superfund Amendments and Reauthorization Act

CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986. Title 5 of this regulation requires that each community establish a local emergency planning committee to develop an emergency plan for preparing for and responding to a chemical emergency. The emergency plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The certified unified program agency (CUPA) is responsible for coordinating hazardous material and disaster preparedness planning and appropriate response efforts with city departments as well as local and state agencies. The CUPA with responsibility for the project site is the Los Angeles County Fire Department. The goal is to improve public- and private-sector readiness and to mitigate local impacts resulting from natural or man-made emergencies.

Emergency Planning and Community Right-to-Know Act

Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA) as the national legislation on community safety. This law helps local communities protect public health, safety, and the environment from chemical hazards. The act's primary purpose is to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored on-site to state and local agencies. These reports help communities prepare to respond to chemical spills and similar emergencies. EPCRA Section 3131 requires manufacturers to report releases to the environment (air, soil, and water) of more than 600 designated toxic chemicals, report off-site transfers of waste for treatment or disposal at separate facilities, prepare pollution prevention measures and activities, and participate in chemical recycling. These annual reports are submitted to the EPA and state agencies. The EPA maintains and publishes a database that contains information on toxic chemical releases and other waste management activities by certain industry groups and federal facilities. This online publicly available, national digital database is called the Toxics Release Inventory and was expanded by the Pollution Prevention Act of 1990.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 was enacted by Congress to give the EPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The EPA repeatedly screens these chemicals and can require reporting or testing of any that may pose an environmental or human health hazard. It can ban the manufacture and import of chemicals that pose an unreasonable risk. Also, the EPA has mechanisms in place to track the thousands of new chemicals that industry develops each year with either unknown or dangerous characteristics. It then can control these chemicals as necessary to protect human health and the environment. The act supplements other federal statutes, including the Clean Air Act and the Toxic Release Inventory under the EPCRA.

Porter-Cologne Water Quality Control Act

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code). The act grants the State Water Resource Control Board (SWRCB) and each of the Regional Water Quality Control Boards (RWQCBs) power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface waters and groundwater, to regulate waste disposal sites, and to require cleanup of

discharges of hazardous materials and other pollutants. The act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum products.

Los Angeles Regional Water Quality Control Board

The Los Angeles RWQCB is one of nine statewide regional boards. The Los Angeles RWQCB protects groundwater and surface water quality in the Los Angeles region, including the coastal watersheds of Los Angeles and Ventura Counties, along with very small portions of Kern and Santa Barbara Counties. In order to carry out its mission to preserve and enhance water quality, the RWQCB conducts the following range of activities to protect groundwater and surface waters under its jurisdiction:

- Addresses region-wide and specific water quality concerns through updates of the Water Quality Control Plan (Basin Plan) for the Los Angeles region.
- Prepares, monitors compliance with, and enforces waste discharge requirements, including National Pollutant Discharge Elimination System (NPDES) permits.
- Implements and enforces local stormwater control efforts.
- Regulates the cleanup of contaminated sites which have already polluted or have the potential to pollute groundwater or surface water.
- Enforces water quality laws, regulations, and waste discharge requirements.
- Coordinates with other public agencies and groups that are concerned with water quality.
- Informs and involves the public on water quality issues.

California Water Code Sections 13267 and 13304 Order

The Los Angeles RWQCB issued an order pursuant to California Water Code Sections 13267 and 13304 to clean up and abate the effects of petroleum hydrocarbon compounds and other contaminants of concern discharged from the project site.

California Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) is a regulatory agency under the California Environmental Protection Act that follows the Toxic Substances Control Act of 1976. The DTSC regulates chemicals that pose a risk to the environment or health of the people as well as clean up toxic materials and hazardous waste in California. The department's mission is to restore contaminated resources, enforce hazardous waste laws, reduce hazardous waste generation, and encourage the manufacture of chemically safer products.

Hazardous Materials Release Response Plans and Inventory Law of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered to be hazardous waste. Health

concerns pertaining to the release of hazardous materials; however, are similar to those relating to hazardous waste.

California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) (Health and Safety Code Section 25100 et seq.) is the primary hazardous waste statute in California. The law implements the Resource Conservation and Recovery Act as a cradle-to-grave waste management system in the state. The HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The law exceeds federal requirements by mandating source reduction planning and contains a much broader requirement for permitting facilities that treat hazardous waste. It also regulates certain types of wastes and waste management activities that are not covered by federal law under the RCRA.

To aid the regulated community, the State of California has compiled hazardous materials, waste, and toxics-related regulations from California Code of Regulations (CCR) Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated section: CCR Title 26, Toxics. However, the California hazardous waste regulations are still commonly referred to as Title 22.

The transportation of hazardous waste by truck (or rail) is regulated by the US Department of Transportation through National Safety Standards. These standards are also included in the California Administrative Code, Environmental Health Division. The California Department of Public Health regulates hazardous waste haulers. The California Highway Patrol has jurisdiction over transportation-related hazardous waste incidents on public roads.

5.4.1.2 EXISTING AND HISTORICAL LAND USES

A Phase I and Phase II (Phase I) Environmental Site Assessment (ESA) was prepared for the project site in accordance with the practices identified in the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E1527-13, and Title 40 of the Code of Federal Regulations (CFR), Part 312. The assessment's objective was to identify recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs), or historical recognized environmental conditions (HRECs), as defined under ASTM E-1527-13.

As defined in ASTM E1527-13, a recognized environmental condition is the presence or likely presence of any hazardous substances or petroleum products in, on or at a property due to any release to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.

As defined in ASTM E1527-13, a historical recognized environmental condition is a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, institutional controls, engineering controls). Before calling the past release an HREC, the EPA must determine whether the past release was an REC at the time the Phase I Environmental Site Assessment is conducted (e.g., if there has been a change in the regulatory criteria).

As defined in ASTM E1527-13, a controlled recognized environmental condition is a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls).

According to the Phase I ESA, the project site has a long history of agricultural and manufacturing uses. Portions of the project site were used for orchard and agricultural purposes until the 1950s, when the project site transitioned to warehousing and manufacturing uses. Some agricultural uses remained until 2005, when all areas of the project site were cleared and buildings removed. No development has occurred on-site since 2006. However, stockpiles of soils and gravel and what appear to be parked containers and trailer vehicles are visible in historical aerial photographs. The following existing environmental conditions at the project site were identified in the Phase I ESA.

Subsurface Structures

A concrete pad near the southwest corner of the project site had several polyvinyl chloride (PVC) pipes protruding from the surface that had been cut roughly 6 inches above the concrete pad. These pipes all appear to be related to former utility conduit for the buildings that are no longer present.

As reported in the Phase I ESA, a Groundwater Well Abandonment and Installation Report was prepared for the project site in 2004. Three monitoring wells were reported as abandoned and replaced with three new monitoring wells. These monitoring wells were observed in the northern portion of the project site. Two additional monitoring wells were identified in the documents on file with local agencies; however, the locations of these wells could not be confirmed in the field. Based on agreements with the EPA, these wells will need to remain on-site and access granted to the EPA as required for sampling. If relocation of these wells is employed to facilitate development, the EPA will need to be notified. Approval for any disturbance of the wells will be necessary prior to any relocation, and the cost for abandonment and relocation paid by the site developer.

All existing groundwater monitoring wells must remain on-site without any disturbance, removal, relocation, or damage without appropriate notification to the EPA.

Polychlorinated Biphenyls

Electrical transformers, hydraulic equipment capacitors, fluorescent light fixtures, and similar equipment may contain polychlorinated biphenyls (PCBs) in the hydraulic fluids or dielectric insulating fluids within the units. No equipment was located on-site that would utilize PCBs.

Lead-Based Paint

Concern for lead-based paint is primarily related to residential structures. The EPA's Final Rule on Disclosure of Lead-Based Paint in Housing (40 CFR Part 745) defines lead-based paint as paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or 0.5 percent by weight. Due to the absence of structures on the property, lead-based paint is not likely to be present at the project site.

Asbestos-Containing Materials

Asbestos can be found in many applications, including sprayed-on or blanket-type insulation, pipe wraps, mastics, floor and ceiling tiles, wallboard, mortar, roofing materials, and a variety of other materials commonly used in construction. Due to the absence of structures on the property, asbestos is not likely to be present at the project site.

Pesticide Issues

A review of historical aerial photographs shows the project site as agricultural land until most of the trees were cleared in the 1950s. Buildings were present on the project site in 1964, but the site was vacant by 2005. The project site has been undeveloped since then. Use for agriculture purposes can be a potential concern due to possible pesticide use. However, because of the planned commercial/industrial use of the site, pesticides do not pose an environmental concern at the project site.

Radon Gas

Radon is an odorless, tasteless, and invisible gas produced by the decay of naturally occurring uranium in soil and water. Radon is a form of ionizing radiation and an identified carcinogen. The EPA has determined that exposure to 4.0 picocuries per liter (pCi/L) of radon gas on a regular basis increases the risk of lung cancer. The project site is located in an area designated as EPA Radon Zone Level 2, with a predicted average indoor screening level of less than 4.0 pCi/L but greater than 2.0 pCi/L. According to the Phase I ESA, all of the 20 sites tested in the 91748 zip code (area of the project site) exhibited levels below 4 pCi/L. The average first-floor radon concentration in the area of the project site is 0.711 pCi/L. Therefore, the project site is in an area of low radon risk, and radon is unlikely to represent an environmental concern at the site.

Oil Wells

According to the Digital Online Mapping System by the California Department of Oil, Gas, and Geothermal Resources (2014), the nearest oil well is over half a mile away from the project site. Therefore, oil wells do not represent an environmental condition and no further investigation of this condition is necessary.

Stockpiles

Material stockpiles composed of soil and construction debris are found in fenced sections of the site. These stockpiles are likely from the California Department of Transportation (Caltrans) road improvement activities along Railroad Street south of the site. It is not anticipated that these stockpiles of materials would create a hazardous condition on the project site.

Underground Storage Tanks

The Phase I ESA identified four historical underground storage tanks (USTs) that have been removed: three at 942 S. Azusa Avenue (one waste oil UST and two diesel USTs) and one at 17300 Chestnut Street (gasoline UST). Three underground storage tanks at 942 S. Azusa Avenue are identified as RECs and discussed further under Impact 5.4-2 in Section 5.4.4, Environmental Impacts.

A 1,000-gallon gasoline tank at 17300 Chestnut Street in the northeast portion of the project site was removed in 1987 and one soil sample was collected beneath the tank for total petroleum hydrocarbons (TPH). No TPH was reported, and closure was granted by the Los Angeles County Department of Public Works. Additionally,

a 478-gallon dip tank used for coating trailer parts with Tectyl 127B (which contains aluminum and volatile petroleum hydrocarbons) was removed in 1992. The dip tank was 10 feet tall, of which 8 feet was below the ground surface and in a secondary containment. Two samples were collected from the bottom of the excavation at the time of removal and analyzed for pH, volatile organic compounds (VOCs), and metals. The test concluded that no VOCs were present, and the levels of metals and TPH are naturally occurring. The County Department of Public Works granted closure for the dip tank in 1993. Therefore, no additional investigation of the tanks at 17300 Chestnut Street was deemed necessary.

Surface Drainage

The project site is relatively flat, with a slight gradient to the north. Runoff from most of the project site flows into several stormwater retaining ponds throughout the project site.

Groundwater

Groundwater in the vicinity of the project site is expected to be approximately 30 feet below the ground surface and flows generally to the northwest. The entire site overlies the San Gabriel Valley-Area 4 Superfund Site boundaries. Groundwater in this area is known to be impacted with VOCs from many off-site properties. Based on monitoring wells associated with the Superfund site, the concentration of tetrachloroethylene (PCE) is less than 10 μg/L and of trichloroethylene (TCE) is less than 5 μg/L. These concentrations in soil vapor from groundwater are generally low, but above Regional Screening Levels (RSLs). No specific site sources were identified other than very low concentrations in the area. No soil impact was detected above RSLs at any of the locations where soil vapors were detected. Based on collected site data and the human health risk assessment discussed in Section 7 of the Phase I ESA, no additional remedial action is necessary or warranted at the site.

5.4.2 Methodology

An evaluation of the significance of potential impacts related to hazards and hazardous materials must consider both direct effects to the resource and indirect effects in a local or regional context. Potentially significant impacts would generally result in the loss or degradation of public health and safety or obviously conflict with local, state, or federal agency conservation plans, goals, policies, or regulations. Information for this section was obtained from the Phase I Environmental Site Assessment and Additional Subsurface Assessment prepared by Stantec (2015) and from the Health Risk Assessment prepared by PlaceWorks (2016). The Phase I ESA included Review of regulatory agency databases for the property and surrounding area performed by Environmental Data Resources (EDR).

5.4.3 Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

H-2 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.

H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.

H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

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

H-6 For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

H-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

H-8 Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to the urbanized areas or where residences are intermixed with wildlands.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold H-5
- Threshold H-6
- Threshold H-7

These impacts will not be addressed in the following analysis.

5.4.4 Environmental Impacts

The following impact analysis addresses thresholds of significance for potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.4-1: The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. [Threshold H-1]

Impact Analysis: Every home, business, and industry uses or produces, to some extent, flammable, hazardous, and/or toxic materials. Hazardous materials associated with commercial and industrial uses would include products that contain toxic substances, such as cleansers, paints, adhesives, and solvents, although these products are usually in low concentration and small in amount, and would not pose a significant risk to humans or the environment during transport to/from or use at the proposed project site.

The Hazardous Materials Release Response Plans and Inventory Law of 1985 requires businesses that use, handle, or store hazardous materials above a certain quantity to prepare a plan which must include an inventory of hazardous substances on the premises. This plan would include an inventory of hazardous materials, address proper storage, handling, and disposal of hazardous materials, and dictate a spill response and notification requirements. The proposed project would be subject to applicable state and local regulations intended to manage the transport, use, storage, manufacture, and disposal of hazardous materials, ensuring that these materials do not impact people and the environment. As such, impacts would be less than significant.

Impact 5.4-2: The proposed 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. [Threshold H-2]

Impact Analysis: The Phase I ESA identified several recognized environmental conditions (RECs) including former underground storage tanks (USTs) on the western portion of the site, and hazardous materials storage areas, clarifiers, sumps, maintenance shops, spray booths, and some surface staining related to the former manufacturing facility on the site's eastern portion. The Phase I ESA recommended soil and soil gas sampling to assess potential impacts from historical property use and features.

In response to the findings in the Phase I ESA, a Phase II ESA was completed in March, 2015 (included as Appendix F), to assess the identified RECs. The Phase II ESA work included the testing of 15 soil borings across the site and at each of the identified RECs. Soil analysis reported total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs) below laboratory reporting limits, with the exception of soil samples B-2 at 10 feet below ground surface (bgs) on the western portion of the site and B-9 at 2 feet bgs on the eastern portion. These borings were located near the former diesel USTs (B-2) and the maintenance and repair shed (B-9), respectively. B-2-10 contained TPH as diesel (TPHd) at 17 milligrams per kilogram (mg/kg), and B-9-2 contained tetrachloroethene (PCE) at 0.0065 mg/kg. Both of these reported analytes are below the EPA's Regional Screening Levels for commercial and residential soils. All Title 22 metals detected were within typical background metals ranges for California.

A total of 18 soil gas samples were also collected across the site and analyzed for VOCs. Soil vapor analytical results reported concentrations of PCE, TCE, benzene, ethylbenzene, and 1,2,4-trichlorobenzene above their respective RSLs for commercial soil vapor.

Due to the soil gas sample results, as identified in the Phase I ESA, a site-specific soil vapor intrusion to indoor air human health risk evaluation (HHRE) was prepared for commercial receptors in the proposed future warehouse buildings. The HHRE concluded that, on a location-by-location basis, the RECs identified by the Phase I and II ESAs, including the shallow soil vapor concentrations, would not pose unacceptable risk to future commercial/industrial receptors. All cancer risk was estimated to be below the acceptable EPA and DTSC benchmarks of 1E-06 and the acceptable hazard index of 1.0.

Based on the Phase I and II ESAs completed on-site, all recognized environmental conditions have been addressed. However, to ensure that no significant impact occur, mitigation measures have been identified. The mitigation requires that a soil management plan be developed to address how unrecognized environmental conditions, should they exist, be addressed during site development activities. With the exception of grading

inspections in the area of borings B-4 and B-8, and possibly post-grading vapor sampling, no further assessment is recommended.

As stated above, development of the proposed project would require further management or remediation under the oversight of applicable agencies and in compliance with local environmental regulations. The project developer/applicant will be required to collect soil and soil vapor data from impacted areas and coordinate with the City of Industry Planning Department to attain "closure," "no further action," or similar determination status from appropriate responsible oversight agencies, such as the Los Angeles County Department of Public Works and the Los Angeles RWQCB. Implementation of mitigation measures would ensure health and safety of the environment and population during construction and operation.

Impact 5.4-3: The proposed project could result in significant adverse impacts to nearby sensitive receptors. [Threshold H-3]

Impact Analysis: The nearest residential uses to the project site are approximately 450 feet to the northwest. Therefore, a health risk assessment was prepared to evaluate whether toxic air emissions associated with the proposed project's operational activities (i.e., diesel truck and off-road equipment emissions) could pose a health risk. If operational emissions from the warehouse facilities do not pose a risk to the nearest residents, there also would be no risk to sensitive receptors at greater distances. The HRA evaluated both carcinogenic and non-carcinogenic health risks based on the latest methodology of the Office of Environmental Health Hazard Assessment and on SCAQMD recommendations. Refer to Section 5.1, Air Quality, for additional details regarding the methodology and findings of the HRA.

Health risks associated with exposure to carcinogenic compounds at the project site can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The SCAQMD has established a maximum incremental cancer risk of 10 in a million (10×10^{-6}) for CEQA projects. As shown in Table 5.4-1, Health Risk Assessment Results, the incremental cancer risk for the proposed project is 28.1 in a million (28.1×10^{-6}), exceeding the significance threshold. Therefore, cancer risk impacts to off-site sensitive receptors are considered potentially significant if not mitigated. However, implementation of Mitigation Measures AQ-2 through AQ-6 related to Impact 5.1-3 in Chapter 5.1, Air Quality, would reduce operational impacts to a less than significant level. Mitigation Measure AQ-2 in particular would require electric-powered or alternative-fuel off-road equipment to be utilized at the warehouse buildings to ensure that the proposed project's operational toxic air contaminant emissions are significantly reduced.

Also shown in Table 5.4-1 are the results of the chronic and acute hazard index totals. To quantify noncarcinogenic impacts, the hazard index approach was used. The hazard index assumes that chronic subthreshold exposures adversely affect a specific organ or organ system (toxicological endpoint). To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity value. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds a value of 1.0, a health hazard is presumed to exist. The HRA for the proposed project indicates that the chronic and acute hazard indices identified for each toxicological endpoint totaled 0.008 for chronic hazard and 0.003 for acute hazard, not exceeding the threshold value of 1.0. Therefore, noncarcinogenic impacts to off-site sensitive receptors would be less than significant, and no mitigation measures are required.

Table 5.4-1 Health Risk Assessment Results: with and without Mitigation

Sources	Cancer Risk (per million)[1]	Chronic Hazard Index	Acute Hazard Index
Truck Running[2]	0.08	<0.001	<0.001
Truck Idling[3]	0.46	<0.001	<0.001
Off-Road Sources[4] *Off-Road Sources with Mitigation[5]*	27.5 *<0.001*	0.008 *0.001*	0.003 *0.060*
Total – All Sources (without Mitigation)	28.1	0.008	0.003
Significance Threshold	10.0	1.0	1.0
Exceeds Threshold?	Yes	No	No
Total – All Sources (with Mitigation)	0.54	0.002	0.060
Significance Threshold	10.0	1.0	1.0
Exceeds Threshold? (with Mitigation)	No	No	No

Sources: Lakes AERMOD View 9.1.0, 2015; CARB 2015

1 Residential cancer risks were determined using the high-end residency exposure duration of 30 years (OEHHA 2015). For informational purposes, the maximum 70-year lifetime and 9-year average residency time cancer risks were calculated and are provided in Appendix D.

2 Truck running is based on EMFAC2014 running emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT).

3 Truck idling is based on EMFAC2014 idle emission rates for medium-duty vehicles (MDV), light-heavy-duty trucks 1 (LHDT1), light-heavy-duty trucks 2 (LHDT2), medium-heavy-duty trucks (MHDT), and heavy-heavy-duty trucks (HHDT), and assumes 15 minutes of idling per truck.

4 Assumes 11 diesel-powered forklifts at the warehouse buildings operating for 4 hours per each shift and a total of 3 work-shifts per day and 1 propane-powered forklift at the warehouse operating for 8.5 hours per day.

5 Incorporates Mitigation Measure AQ-2, which requires electric-powered or alternative-fuel off-road equipment to be utilized at the warehouse buildings.

Impact 5.4-4: The project site includes historical hazardous materials uses that require further evaluation and/or removal. [Threshold H-4]

Impact Analysis: Although the project site is currently vacant and does not contain any above-grade structures, with the exception of a billboard at the corner of Railroad Street and Azusa Avenue. Past manufacturing uses on-site involved various hazardous materials, including removed USTs, that have the potential to create a significant hazard to the public or the environment. While no definite environmental concerns have been reported, several issues have been identified that require additional testing and investigation.

942 S. Azusa Avenue

- **One Historical Waste Oil UST:** A 500-gallon waste oil UST was removed in 1988. The final samples collected after the removal and overexcavation of the waste oil UST reported 5.47 parts per million (ppm) of TPH. Although the detected TPH level was considered below significance threshold level, the Los Angeles County Department of Public Works never granted a closure. Additionally, no data was included for the VOCs, and no soil vapor samples were collected at the time of UST removal.

- **Two Historical Diesel USTs:** Two 7,500-gallon diesel USTs were removed along with three groundwater monitoring wells in 1996 following a quarterly groundwater report that confirmed contaminant levels were below state maximum contaminant levels. These USTs were granted closure by the County Department of Public Works and the Los Angeles RWQCB. However, no soil vapor samples were collected when the tanks were removed, and a portion of the overexcavation of the tank pits was not completed because it would have impacted the structural integrity of a nearby building.

17300 Chestnut Street

- **Historical Hazardous Storage Areas:** There are two historic hazardous storage areas at the project site. Collection of soil and soil vapor data is necessary for VOC assessment.

- **Historical Clarifier:** There is a clarifier at the project site with no information regarding the removal. Collection of soil and soil vapor data is necessary for VOC assessment.

- **Historical Spray Booths:** Several spray booths were historically located on the project site. Soil vapor extraction systems were installed in 1995 to combat VOCs coming from the project site, one of which was in the vicinity of one of the booths. However, the Phase I research was unable to find soil vapor data collected after the extraction system was removed. Collection of soil and soil vapor samples in the vicinity of the historical spray booths is necessary for VOC assessment.

- **Historical Machine and Maintenance Shops:** Collection of soil and soil vapor samples in the vicinity of the historical machine and maintenance shops is necessary to analyze for TPH, VOCs, and metals.

- **Surface Staining:** A surface staining was observed near the southeast corner of the project site. Collection of soil and soil vapor samples is necessary to determine if this staining has impacted the subsurface of the project site.

- **NPL Groundwater Plume:** The project site overlays a groundwater plume identified as the San Gabriel Valley (Area 4), which is located at Stimson Avenue and Old Valley Boulevard in La Puente. EDR has mapped the extent of the remediation area to include the entire site. This area is cross-referenced in the CERCLIS, US Eng. Controls, ROD, ICIS, and PRP databases. The area is on the final NPL for tetrachloroethylene (PCE) and trichloroethylene (TCE) in groundwater. Although the project site was found not to contribute to this impact and the Los Angeles RWQCB issued closure to this facility for this impact, due to the shallow depth to groundwater, there is a potential that soil vapor off-gassing from groundwater may exist in the subsurface at levels of concern to commercial development. A vapor survey is necessary in accordance with the vapor encroachment analysis required by the ASTM 13 standard.

A non-ASTM issue on the project site includes a monitoring well along the eastern edge of the project site and four monitoring wells in the documents on file with local agencies. The case status of the project site as a potential responsible party should be determined and if allowed, any wells left on the project site should be properly abandoned prior to development.

As stated above, development of the proposed project would require further management or remediation under the oversight of applicable agencies and in compliance with local environmental regulations. The project developer/applicant will be required to collect soil and soil vapor data from impacted areas and coordinate with the City of Industry Planning Department to attain "closure," "no further action," or similar determination status from appropriate responsible oversight agencies, such as the Los Angeles County Department of Public Works and the Los Angeles RWQCB. Implementation of mitigation measures would ensure health and safety of the environment and population during project construction and operation.

5.4.5 Cumulative Impacts

The assessment of potential cumulative impacts with regard to hazards and hazardous materials refers to the potential for on- and off-site hazardous materials to have a cumulative effect on the health and well-being of project occupants. The hazardous materials study area considered for cumulative impacts consists of the project site and the areas affected by other off-site projects where activities could directly or indirectly affect the presence or dispersion of hazardous materials onto the project site. This section of the DEIR has described all such issues relative to the project site, including potential impacts from the past hazardous materials uses and removed USTs, and operational emissions impacts to nearby sensitive receptors. All other development projects are subject to the same regulations concerning hazards and hazardous materials as the proposed project. Implementation of the proposed project would initiate cleanup of the project site from past hazardous materials use prior to construction, and the operation of the proposed project would not result in a significant hazardous emissions impact individually, as concluded by the HRA, and therefore would not have a cumulative impact. Therefore, the project's contribution to cumulative impacts related to hazards and hazardous materials would be less than cumulatively considerable.

5.4.6 Existing Regulations and Standard Conditions

- Hazardous Materials Release Notification
- Health and Safety Code Sections 25270.7, 25270.8, and 25507
- Vehicle Code Section 23112.5
- Public Utilities Code Section 7673 (PUC General Orders #22-B, 161)
- Government Code Sections 51018, 8670.25.5(a)
- California Labor Code Section 6409.1(b)10
- Hazardous Materials Disclosure Programs
- Hazardous Materials Business Plans
- California Accidental Release Prevention Program
- South Coast Air Quality Management District Rule 1403
- California Code of Regulations Title 22, Division 4.5: Environmental Health Standards for the Management of Hazardous Waste: Hazardous waste must be handled, stored, transported, treated, and disposed according to mandated laws and regulations found in these code sections. They provide an effective process for hazardous waste management planning at the local level to ensure adequate handling, storing, transporting, treating, and disposing of hazardous materials.
- California Fire Code
- Los Angeles County Fire Code

5.4.7 Level of Significance Before Mitigation

Without mitigation, the following impact would **be** potentially significant**:**

Impact 5.4-2 The proposed 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.

Impact 5.4-3 The proposed project could result in significant adverse impacts to nearby sensitive receptors.

Impact 5.4-4 The project site includes historical hazardous materials uses that require further evaluation and/or removal.

5.4.8 Mitigation Measures

Impact 5.4-3

Mitigation Measures AQ-2 through AQ-6 applied for Impact 5.1-3 in Section 5.1, Air Quality, would be applicable.

AQ-2 Only electric-powered or alternative-fueled (e.g., propane, liquefied natural gas, compressed natural gas) off-road equipment, such as forklifts, shall be utilized for daily warehouse operations.

AQ-3 The project developer/applicant shall implement the following measures that are identified as voluntary measures in the 2013 California Green Building Standards Code (CALGreen Code), Appendix A5, Nonresidential Voluntary Measures.

1. The parking lot shall be marked in compliance with the CALGreen Code Section A5.106.5.1, which requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles. The designated parking stalls are required to be painted "Clean Air Vehicle" per CALGreen Code Table A5.106.5.1.2.

2. Changing/shower facilities shall be provided as specified in CALGreen Code Section A5.106.4.3.

3. Infrastructure in the parking lots shall be installed to support future electric vehicle charging. Installation shall be consistent with CALGreen Section A5.106.5.3.

AQ-4 Legible, durable, weatherproof 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 instructions for truck drivers to shut off engines when not in use, instructions for drivers of diesel trucks to restrict idling to no more than 3 minutes, and telephone numbers for the building facilities manager and CARB to report violations.

AQ-5 Signage shall be provided on-site to alert all truck drivers that operation of transport refrigeration units (TRUs) shall be limited to those powered by zero-emission sources and units connected to a local electric power source.

AQ-6 Tenants shall be notified about the availability of alternatively fueled cargo handling equipment, grant programs for diesel-fueled vehicle engine retrofit and/or replacement, designated truck parking locations in the City of Industry, access to alternative fueling stations proximate to the site that supply compressed natural gas, and the US Environmental Protection Agency's SmartWay program.

Impacts 5.4-2 and 5.4-4

HAZ-1 Prior to issuance of a grading permit, the project developer/applicant shall collect soil and soil vapor samples to be analyzed for volatile organic compounds (VOCs) in the areas of the removed oil waste underground storage tank (UST) at 942 S. Azusa Avenue as identified in the Phase I Environmental Site Assessment prepared by Stantec dated September 26, 2014. If the detected sample data result exceeds the applicable threshold level, further removal or management action shall be performed consistent with all applicable state and local rules, regulations, and laws. A cleanup would not be considered complete until confirmatory samples of soil reveal levels of contamination below the standards established by the oversight agency. The sample data and result showing levels of contamination below the significance threshold shall be submitted to the Los Angeles County Department of Public Works to obtain regulatory closure for the UST.

HAZ-2 Prior to issuance of a grading permit, the project developer/applicant shall collect soil and soil vapor samples and tests as identified by the Phase I Environmental Site Assessment prepared by Stantec dated September 26, 2014, and listed below. If any of the detected sample data results exceed the applicable threshold level, further removal or management action shall be performed consistent with all applicable state and local rules, regulations, and laws. A cleanup would not be considered complete until confirmatory samples of soil reveal levels of contamination below the standards established by the oversight agency. The sample data and result showing levels of contamination below the significant threshold shall be submitted to the Los Angeles County Department of Public Works and the Los Angeles Regional Water Quality Control Board.

- In the areas of the removed two diesel underground storage tanks (USTs) at 942 S. Azusa Avenue for total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs).
- In the areas of the two historic hazardous storage areas, a clarifier, and several historical spray booths at 17300 Chestnut Street for VOCs.
- In the areas of historical machine and maintenance shops at 17300 Chestnut Street for TPH, VOCs, and metals.
- From the surface staining area at the southeast corner of the project site to determine whether this staining has impacted the subsurface of the project site.

HAZ-3 The project developer/applicant shall conduct a vapor survey in accordance with the vapor encroachment analysis required by ASTM 13 standards in the San Gabriel Valley (Area 4) National Priority List groundwater plume area to determine if impacts from tetrachloroethylene (PCE) and trichloroethylene (TCE) exist on the project site. If the detected sample data result exceeds the applicable threshold level, further removal or management action shall be performed consistent with all applicable state and local rules, regulations, and laws.

5.4.9 Level of Significance After Mitigation

The mitigation measures would reduce potential impacts of hazards and hazardous emissions and materials to less than significant. No significant unavoidable adverse impacts relating to hazards have been identified.

5.4.10 References

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. 2014. GIS Mapping. http://www.consrv.ca.gov/dog/maps.

California Division of Mines and Geology. 1965. Geologic Map of California, Santa Ana Sheet, scale 1:250,000.

CARB (California Air Resources Board). 2015. Hotspots Analysis and Report Program (HARP), Risk Assessment Standalone Tool (RAST), Version 2.

CGS (California Geological Survey). 2002. California Geomorphic Provinces, Note 36.

———. 2010a. Fault Activity Map of California, adjustable scale. http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html.

———. 2010b. Alquist-Priolo Earthquake Fault Zones of California. http://www.quake.ca.gov/gmaps/ap/ap_maps.htm.

EPA (US Environmental Protection Agency). 2015. Resource Conservation and Recovery Act. http://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act.

———. 2016a. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) http://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act.

———. 2016b. Emergency Planning and Community Right-to-Know Act (EPCRA). http://www.epa.gov/epcra.

———. 2016c. Toxic Substances Control Act. http://www.epa.gov/laws-regulations/summary-toxic-substances-control-act.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

PlaceWorks. 2016. Health Risk Assessment.

Stantec. 2014. Phase I Environmental Site Assessment and Additional Subsurface Assessment.

SWRCB (California State Water Resources Control Board). 2014. GeoTracker. http://geotracker.swrcb.ca.gov/.

This page intentionally left blank.

5.5 Noise

5.5 NOISE

This section evaluates the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; identifies noise levels for existing conditions; and evaluates the potential noise and vibration impacts associated with buildout of the proposed project. The noise modeling data is included in Appendix G of this Draft EIR.

5.5.1 Environmental Setting

Noise Descriptors

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as noisiness or loudness.

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (L_{eq}).** The mean of the noise level, energy averaged over the measurement period.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 PM to 10:00 PM and 10 dB from 10:00 PM to 7:00 AM.

Characteristics of Sound

When an object vibrates, it radiates part of its energy as acoustical pressure in the form of a sound wave. Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate the human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The normal range of human hearing extends from approximately 0 dBA (the threshold of detection) to 140 dBA (the threshold of pain).

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 5.5-1, Change in Apparent Loudness, presents the subjective effect of changes in sound pressure levels.

Table 5.5-1 Change in Apparent Loudness

± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen 2009

Sound is generated from a source and the decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as spreading loss or distance attenuation.

When sound is measured for distinct time intervals, the statistical distribution of the overall sound level during that period can be obtained. For example, L_{50} is the noise level that is exceeded 50 percent of the time: half the time the noise exceeds this level and half the time it is less than this level. This is also the level that is exceeded 30 minutes in an hour. Similarly, the L_{02}, L_{08}, and L_{25} values are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. The energy-equivalent sound level (L_{eq}) is the most common parameter associated with community noise measurements. The L_{eq} metric is a single-number noise descriptor of the energy-average sound level over a given period of time. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values are the minimum and maximum root-mean-square (RMS) noise levels obtained over the stated measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and nighttime hours, state law requires that for planning purposes and to account for this increased receptiveness of noise, an artificial decibel increment is to be added to quiet-time noise levels to calculate the 24-hour CNEL noise metric.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, through generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level number means. To help relate noise level values to common experience, Table 5.5-2, Typical Noise Levels, shows typical noise levels from familiar sources.

Table 5.5-2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2009

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities such as railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is the velocity, and the rate of change of the speed is the acceleration. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During project construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure. These types of vibration are best measured and described in terms of velocity and acceleration.

The three main types of waves associated with groundborne vibrations are surface or Rayleigh waves, compression or P-waves, and shear or S-waves.

- **Surface or Rayleigh waves** travel along the ground surface. They carry most of their energy along an expanding cylindrical wave front, similar to the ripples produced by throwing a rock into a lake. The particle motion is more or less perpendicular to the direction of propagation.

- **Compression or P-waves** are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal, in a push-pull motion. P-waves are analogous to airborne sound waves.

- **Shear or S-waves** are also body waves, carrying their energy along an expanding spherical wave front. Unlike P-waves, however, the particle motion is transverse, or perpendicular to the direction of propagation.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or RMS velocity. PPV is the maximum instantaneous peak of the vibration signal, while RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response.

The units for PPV and RMS velocity are normally inches per second (in/sec). Often, vibration is presented and discussed in dB units in order to compress the range of numbers required to describe the vibration. In this analysis, all PPV and RMS velocity levels are in inches per second and all vibration levels are in dB relative to one microinch per second (abbreviated as VdB). Typically, groundborne vibration generated by human activities attenuates rapidly with distance. Even the more persistent Rayleigh waves decrease relatively quickly as they move away from the source of the vibration. Man-made vibration problems are therefore usually confined to short distances (500 to 600 feet or less) from the source (FTA 2006).

Construction operations generally include a wide range of activities that can generate groundborne vibration. In general, blasting and demolition of structures generate the highest vibrations. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which can vary depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, etc., all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions. Trains generate substantial quantities of vibration due to their engines, steel wheels, heavy loads, and wheel-rail interactions.

5.5.1.1 REGULATORY FRAMEWORK

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the State of California and the County of Los Angeles have established standards and ordinances to control noise. The following paragraphs discuss the noise standards applicable to the project.

State of California Noise Requirements

The State regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise insulation standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a general plan that includes a noise element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. The purpose of the noise element is to limit the exposure of the community to excessive noise levels.

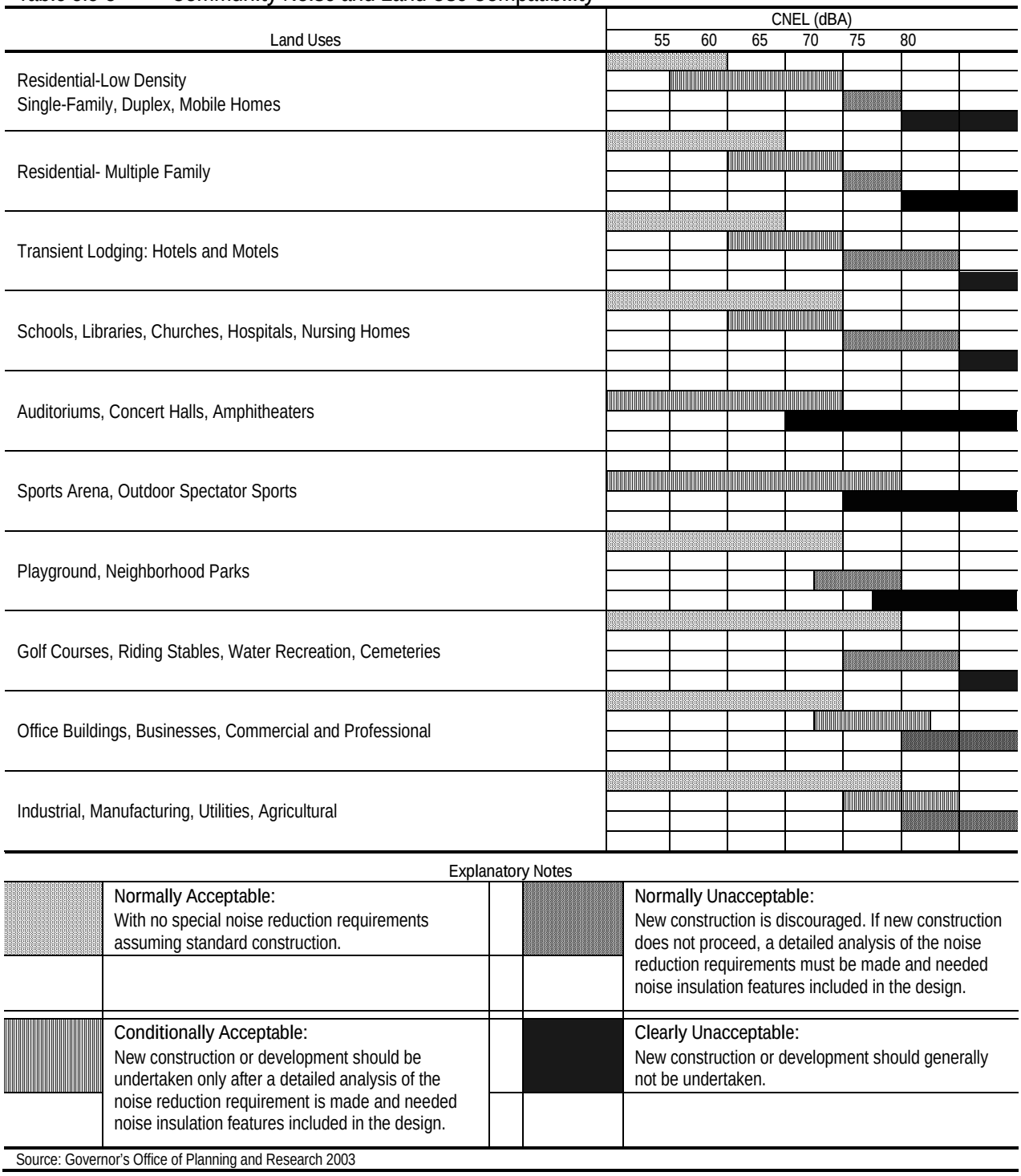
The State Noise Compatibility Guidelines, presented in Table 5.5-3, Community Noise and Land Use Compatibility, are designed to ensure that proposed land uses are compatible with the predicted future noise environment. At different exterior noise levels, individual land uses are identified as "clearly acceptable," "normally acceptable," "normally unacceptable," or "clearly unacceptable." A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts. Under CEQA, a project has a significant impact if the project exposes people to noise levels in excess of thresholds, which can include standards established in the local general plan or noise ordinance.

State of California Building Code

The State's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise standards are applied to new construction in the state for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Table 5.5-3 Community Noise and Land Use Compatibility



Source: Governor's Office of Planning and Research 2003

Local Noise and Vibration Standards and Requirements

The project site is in the City of Industry near the city's northern boundary abutting La Puente and unincorporated Los Angeles County. The city boundary with La Puente is along Valley Boulevard to the north

of the site, and the boundaries for the neighborhoods of Hacienda Heights and South San Jose Hills are along State Route (SR) 60 to the south and east La Puente to the north, respectively. The City of Industry and La Puente are in Los Angeles County. The pertinent county and city regulations regarding noise and vibration are discussed below.

City of Industry

Safety Element

The City of Industry includes Noise and Land Use Compatibility in the Safety Element of its General Plan (2014). The noise section discusses existing noise sources and noise assessment and modeling strategies. The stated goal is "an environment where noise does not adversely affect sensitive land uses," which is supported by Policies S6-1 through S6-3. The City has adopted the State Noise Compatibility Guidelines, depicted as Table 4 in the Safety Element and shown in Table 5.5-3 in this DEIR, to guide development and compatible land uses.

Industry Noise Standards

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the City of Industry addresses public nuisances under Chapter 1.30, Public Nuisance, of the City's Municipal Code. The City has not adopted long-term noise and vibration criteria for land use compatibility consideration. The City has not adopted environmental noise criteria and therefore uses the County of Los Angeles's Noise Ordinance and Community Noise Guidelines for environmental noise assessments. For the purpose of CEQA analysis for projects in the city, the noise standards in the County's noise ordinance (as presented below) are used as significance thresholds for noise.

Industry Vibration Standards

The City of Industry does not have regulatory standards for construction or operational vibration sources. To evaluate project impacts for CEQA analyses, the City relies on the Los Angeles County Code, Section 12.08.560, to address vibration impacts from the operation of equipment to adjacent uses.

County of Los Angeles

The County of Los Angeles regulates noise through the County Code, Title 12, Chapter 12.08, Noise Control. Pursuant to the County Code, the County restricts noise levels generated at a property from exceeding certain noise levels for extended periods of time.

County Exterior Noise Standards

The County applies the Noise Control Ordinance standards summarized in Table 5.5-4, County of Los Angeles Exterior Noise Standards, to non-transportation fans, blowers, pumps, turbines, saws, engines, and other similar machinery. These standards do not gauge the compatibility of developments in the noise environment, but they do include restrictions on the amount and duration of noise generated at a property, as measured at the property line of the noise receptor. The County's noise ordinance is designed to protect people from objectionable non-transportation noise sources such as music, construction activity, machinery, pumps, and air conditioners. The noise standards in Table 5.5-4 apply to all property in a designated noise zone unless otherwise indicated.

Table 5.5-4 County of Los Angeles Exterior Noise Standards

Noise Zone	Time Period	Maximum Permissible Noise Level (dBA)[1,2]				
		Standard 1 (L_{50})	Standard 2 (L_{25})	Standard 3 (L_8)	Standard 4 (L_2)	Standard 5 (L_{max})
Noise-Sensitive Area	Anytime	45	50	55	60	65
Residential Properties	10 PM to 7 AM	45	50	55	60	65
	7 AM to 10 PM	50	55	60	65	70
Commercial Properties	10 PM to 7 AM	55	60	65	70	75
	7 AM to 10 PM	60	65	70	75	80
Industrial Properties	Anytime	70	75	80	85	90

Source: County of Los Angeles County Code, Section 12.08.390

[1] According to Section 12.08.390, if the ambient noise levels exceed the exterior noise standards above, then the ambient noise level becomes the noise standard. If the source of noise emits a pure tone or impulsive noise, the exterior noise levels limits shall be reduced by 5 decibels.

[2] f the measurement location is on a boundary property between two different zones, the noise limit shall be the arithmetic mean of the maximum permissible noise level limits of the subject zones; except when an intruding noise source originates on an industrial property and is impacting another noise zone, the applicable exterior noise level shall be the daytime exterior noise level for the subject receptor property.

- Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable L50 noise level shown above; or, if the ambient L50 exceeds the foregoing level, then the ambient L50 becomes the exterior noise level for Standard No. 1.
- Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable L50 noise level shown above plus 5dB; or, if the ambient L25 exceeds the foregoing level, then the ambient L25 becomes the exterior noise level for Standard No. 2.
- Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour. Standard No. 3 shall be the applicable L50 noise level shown above plus 10dB; or, if the ambient L8 exceeds the foregoing level, then the ambient L8 becomes exterior noise level for Standard No. 3.
- Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable L50 noise level shown above plus 15dB; or, if the ambient L2 exceeds the foregoing level, then the ambient L2 becomes the exterior noise level for Standard No. 4.
- Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable L50 noise level shown above plus 20dB; or, if the ambient L0 exceeds the foregoing level then the ambient Lmax becomes the exterior noise level for Standard No. 5.

County Construction Noise Standards

The County prohibits the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between the weekday hours of 7:00 PM and 7:00 AM, or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance. The County also sets maximum noise levels not to exceed the following maximum noise levels from mobile equipment (non-scheduled, intermittent, short-term operations for less than 30 days) as summarized in Table 5.5-5, County of Los Angeles Mobile Construction Equipment Noise Limits.

Table 5.5-5 County of Los Angeles Mobile Construction Equipment Noise Limits

	Single-Family Residential	Multi-Family Residential	Semi-Residential/ Commercial
Daily, except Sundays and legal holidays, 7 AM to 8 PM	75 dBA	80 dBA	85 dBA
Daily, 8 PM to 7 AM and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA

Source: County of Los Angeles County Code, Section 12.08.440. For nonscheduled, intermittent, short-term operations for less than 30 days.

Maximum noise levels from stationary equipment (repetitively scheduled and relatively long-term operations of ten days or more) are summarized in Table 5.5-6, County of Los Angeles Stationary Construction Equipment Noise Limits.

Table 5.5-6 County of Los Angeles Stationary Construction Equipment Noise Limits

	Single-Family Residential	Multi-Family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7 AM to 8 PM	60 dBA	65 dBA	70 dBA
Daily, 8 PM to 7 AM and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: County of Los Angeles County Code, Section 12.08.440. For repetitively scheduled and relatively long-term operations of 10 days or more.

Vibration

The County of Los Angeles County Code, Section 12.08.560, Vibration, prohibits the operation of any device that creates vibration that is above 0.01 in/sec at or beyond the property boundary of the source, if on private property, or at 150 feet from the source, if on a public space or public right-of-way. This criterion will be utilized to evaluate vibration-annoyance impacts from industrial uses to nearby sensitive receptors.

City of La Puente

The majority of residential uses that would potentially be impacted by operations of the proposed project are located approximately 1,050 feet from the project site, in La Puente, north of Valley Boulevard. The City of La Puente does not employ quantitative noise level limits as part of its noise code. Rather, the regulations are more in terms of disturbance and noise nuisances, which are discussed in Chapter 4.34 of the City of La Puente Municipal Code. The primary wording for the general noise standard is as follows:

> **4.34.010 Prohibited Noises—General standard:** No person shall make, or cause or suffer, or permit to be made upon any premises owned, occupied or controlled by such person, any loud, raucous, jarring, unusual, unnecessary, excessive or other unreasonable noises, sounds or vibrations which are physically annoying to reasonable persons of ordinary sensitivity or which are so harsh or so prolonged or unnatural or unusual in their use, time, or place as to cause or contribute to the unnecessary and unreasonable discomfort to any persons within the neighborhood surrounding the location from which said noises emanate or which unreasonably interfere with the peace and comfort of the residents of the surrounding neighborhood or their guests, or the operators or customers in places of business in the vicinity, or which detrimentally or adversely affect such residences or places of business.

Subsequent sections of this chapter indicate that this general standard is aimed at controlling noise sources such as (private) radios, band rehearsals, engine repair, automobile testing, loading activities, animals, leaf blowers, and loud parties. Since the City of La Puente has no numerical noise level standards, for the purpose of CEQA analysis for projects in the city, the noise standards in the County's noise ordinance (as presented above) will be used herein as significance thresholds for noise.

La Puente Standards

City of La Puente Municipal Code Section 4.34.020(c) restricts the sustained, continuous, or repeated operation or use of any motor or engine or the repair, modification, reconstruction, testing, or operation of any automobile, motorcycle, machine, contrivance, or mechanical device or other contrivance from being plainly audible at: (1) distance of 50 feet or more from the property line of the property from which the noise, sound, or vibration is emanating or (2) the exterior wall of any adjacent residence, whichever is less, between the hours 8:00 PM and 7:00 AM.

According to Section 4.34.020(f) of the City of La Puente Municipal Code, construction is prohibited between the hours of 8:00 PM and 7:00 AM on weekdays or at any time on Saturdays (except that interior construction is permissible between the hours of 7:00 AM and 8:00 PM) or at any time on Sundays or city holidays.

Federal Vibration Standards

For the purpose of this analysis and consistent with common industry practice, the standards adopted by the Federal Transit Administration (FTA) to evaluate vibration from construction equipment are utilized. According to the FTA (2006) Noise and Vibration Impact Guidelines, vibrations generated by project-related construction activities exceeding 0.2 peak particle velocity in inches per second would be strong enough to cause vibration-induced architectural damage to typical wood-framed buildings. Residents in nearby structures may experience vibration-induced annoyance when project-related construction activities exceed the FTA's daytime vibration criteria of 78 VdB (vibration decibels).

5.5.1.2 EXISTING NOISE ENVIRONMENT

The project site is in an industrial area and is subject to noise from a myriad of transportation and stationary sources. The project site is vacant land, bounded by Azusa Avenue, Chestnut Street, and industrial properties. Nearby noise sources include surrounding industrial and commercial properties, Azusa Avenue, Valley Boulevard, and rail lines to the north and south.

To facilitate the assessment of future traffic-related noise levels, the existing traffic noise conditions were modeled using the Federal Highway Administration's (FHWA) Traffic Noise Prediction Model. Table 5.5-7, Existing Conditions Traffic Noise Levels, lists the calculated existing noise levels on roadways in the vicinity of the project site at 50 feet from the roadway centerline. The contours represent areas of equal noise level within an equivalent distance from the roadway centerline. The values shown under the 60, 65, and 70 L_{dn} columns represent the distance from the centerline of the roadway to the respective contour value. The contours do not take into account the effect of any noise barriers (such as trees and fences) or topography that may reduce traffic noise levels.

Table 5.5-7 Existing Conditions Traffic Noise Levels

Roadway	Segment	Daily Traffic Volumes	Noise Level at 50 Feet (dBA CNEL)	Distance to Noise Contour (feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
Azusa Avenue	Gemini St to Salais St	45,600	78.6	188	404	871
Azusa Avenue	Salais St to Hurley St	45,800	78.6	188	406	874
Azusa Avenue	Hurley St to Railroad St	56,585	79.6	217	467	1006
Azusa Avenue	Railroad St to Gale Ave	63,152	80.0	233	502	1082
Azusa Avenue	Gale Ave to SR 60	69,067	84.7	480	1033	2226
Azusa Avenue	SR 60 to Colima Rd	52,700	83.6	401	863	1859
Anaheim & Puente Road	Arenth Ave to Azusa Ave	7,400	60.8	12	26	56
Salais Street	Dora Guzman Ave to Azusa Ave	6,200	60.0	11	23	50
Salais Street	Azusa Ave to Hambledon Ave	5,000	60.8	12	26	57
Hurley Street	Dora Guzman Ave to Azusa Ave	9,400	61.8	14	31	66

Table 5.5-7 Existing Conditions Traffic Noise Levels

Roadway	Segment	Daily Traffic Volumes	Noise Level at 50 Feet (dBA CNEL)	Distance to Noise Contour (feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
Hurley Street	Azusa Ave to Valley Blvd	10,000	66.2	28	60	130
Valley Boulevard	Ferrero Ln to Hurley St	36,700	78.8	194	418	902
Valley Boulevard	Hurley St to Fullerton Rd	44,400	79.7	221	475	1024
Chestnut Street	Bixby Dr to Anaheim & Puente Rd	6,700	63.7	19	41	88
Chestnut Street	Anaheim & Puente Rd to Virgil Waters Way	2,900	60.0	11	23	50
Hatcher Avenue	Virgil Waters Way to Rowland St	2,700	59.9	11	23	49
Hatcher Ave	Rowland St to Lawson St	3,600	61.1	13	28	59
Railroad Street	Azusa Ave to Curl Ct	16,800	68.5	40	85	183
Railroad Street	Curl Ct to Hatcher Ave	16,400	68.4	39	84	180
Rowland Street	Hatcher Ave to Lawson St	14,700	67.9	36	78	168
Gale Avenue	Bixby Dr to Azusa Ave	32,400	74.0	92	199	429
Gale Avenue	Azusa Ave to Hatcher Ave	26,400	73.1	81	174	374

Source: FHWA (1978) Highway Traffic Noise Prediction Model based on traffic volumes provided by RK Engineering in December 2015. Calculations included in Appendix G.

Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration. These uses include residences, schools, hospital facilities, houses of worship, and open space/recreation areas where quiet environments are necessary for the enjoyment, public health, and safety of the community. Commercial and industrial uses—which are the vast majority of uses adjacent to or near the project site—are not considered noise- and/or vibration-sensitive uses. The nearest noise-sensitive uses are single-family residences at the corner of Chestnut Street and Anaheim and Puente Road, approximately 450 feet northwest of the project site. Additionally, there are residential neighborhoods in La Puente to the north (1,100 feet) and Hacienda Heights to the south (2,800 feet). The properties in Industry and La Puente are currently exposed to noise from industrial and commercial uses, vehicle traffic on Valley Boulevard and Azusa Avenue, and rail traffic. The properties in Hacienda Heights are currently exposed to noise from commercial and distant industrial uses and vehicle traffic on SR 60 and Azusa Avenue.

The proposed project would consist of industrial uses and would be subject to City of Industry Safety Element Policies S6-2 and S6-3, which state that noise and vibration impacts must be addressed through enforcement of the noise ordinance, project and environmental review, and compliance with state and federal standards.

5.5.1.3 METHODOLOGY

Traffic Noise Modeling

The traffic noise levels for this project were estimated using the FHWA Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model determines a predicted noise level through a series of adjustments to a reference sound level. These adjustments account for traffic flows, speed, truck mix, varying distances from

the roadway, length of exposed roadway, and noise shielding. Vehicle speeds on each roadway were assumed to be the posted speed limit, and no reduction in speed was assigned due to congested traffic flows. Current roadway characteristics, such as the number of lanes and speed limits, were determined from field observations and according to roadway classifications. Traffic volumes were obtained from the traffic impact analysis prepared for the project (Appendix H).

Project Land Use Compatibility

Land use compatibility is typically addressed in the noise element portion of any given city's general plan so as to help ensure that incompatible land uses are not located near one another. For noise compatibility in particular, the acceptability of proposed future developments is primarily determined by the future noise level anticipated on a site and the type of existing or proposed land use on that site. In the project area, transportation-related noise is the primary concern; therefore, the analysis for land use compatibility addresses traffic noise impacts onto proposed uses. This approach, however, is constrained by recent court case precedents, which are discussed in more detail in the environmental impact discussions in Section 5.5.3 below.

Traffic noise contour boundaries are often utilized by local land use planning and zoning authorities to evaluate sound level exposures on land that is being considered for development and is adjacent to highways; these traffic noise contour boundaries are used in this analysis to assess the traffic noise level impacts to the project. The noise contours do not take into account the effect of any existing noise barriers that may affect ambient noise levels and do not take into account the noise contribution from traffic on other roadways, aircraft noise, or noise associated with transit facilities. Because this analysis is for general-area land use, these calculations also do not account for the localized benefits from future project-related barriers.

5.5.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would result in:

N-1 Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

N-5 For a project located within an airport land use plan or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels.

N-6 For a project within the vicinity of a private airstrip, exposure of people residing or working the project area to excessive noise levels.

The Initial Study, included as Appendix A of this Draft EIR, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold N-5
- Threshold N-6

These impacts will not be addressed in the following analysis.

5.5.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.5-1: Construction activities would not result in significant temporary noise increases in the vicinity of the project site. [Threshold N-3]

Impact Analysis: The County of Los Angeles and the City of La Puente recognize that the control of construction noise is difficult at best and provide an exemption for this type of noise when the work is performed within the hours specified by the County of Los Angeles Noise Control Ordinance (i.e., 7:00 AM to 7:00 PM, Monday through Saturday). The County Noise Control Ordinance also lists the maximum acceptable noise levels at off-site receptor locations (i.e., 75 dBA during the above permitted hours of construction activity). Compliance with the noise ordinance is mandatory and as such, does not constitute mitigation under CEQA.

Construction Vehicles

The transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. However, the number of construction-related vehicle trips would be much lower than a 25 percent increase in total daily vehicle flows along Azusa Avenue. As such, this would result in a noise level increase of much less than 1 dB (in the traffic-focused CNEL noise level metric) and would therefore have a less than significant impact on noise receptors along the truck routes. While individual construction vehicle pass-bys may create momentary noise levels of up to approximately 85 dBA (L_{max}) at 50 feet from the vehicle, these occurrences would be no different than the hundreds of similar truck pass-bys that currently occur along Azusa Avenue. Construction vehicle noise impacts would be less than significant.

Construction Equipment

Noise generated during construction is based on the type of equipment used, the location of the equipment relative to sensitive receptors, and the timing and duration of the noise-generating activities. Each stage of construction involves the use of different kinds of construction equipment and therefore has distinct noise characteristics. Noise levels from construction activities are dominated by the loudest piece of construction equipment. The dominant noise source is typically the engine, although workplace noise (such as dropping of materials) can also be noticeable. Noise levels from project-related construction activities were calculated from the simultaneous use of all applicable construction equipment at spatially averaged distances (i.e., from the center of the general construction area) to the property line of the nearest residences. The properties near the project site consist of primarily industrial uses, but two residences on Chestnut Street (in the City of Industry) are approximately 950 feet from the center of the construction site. Other residences are north of Valley

Boulevard in La Puente, 1,600 feet from the center of the construction site, and south of SR 60 in unincorporated Los Angeles County, 3,800 feet from the center of the construction site.

Construction Noise at the Nearest Residences

Using project application information provided by the City of Industry, coupled with methodologies employed in the air quality assessment, the expected construction equipment mix was estimated and categorized by construction activity. Project construction is projected to last approximately 12 months, with grading lasting one month. The associated, aggregate sound levels—grouped by construction activity—are summarized in Table 5.5-8, Project-Related Construction Noise Levels.

Table 5.5-8 Project-Related Construction Noise Levels

Construction Activity	Sound Level at Various Distances from Construction Activities (dBA L_{eq})		
	Chestnut St. (950 feet)	La Puente (1,600 feet)	Hacienda Heights (3,800 feet)
Site Prep	59	54	47
Grading	62	57	49
Building Construction	56	52	44
Building Construction + Paving + Architectural Coating	60	55	47

Note: Calculations performed with the FHWA's Roadway Construction Noise Model software.

As shown in the table, combined noise levels for each construction phase would range between 56 and 62 dBA L_{eq} at the residences on Chestnut Street. Therefore, construction noise levels would be below the 75 dBA standard set by the Los Angeles County Code at the nearest receptors. The operation of heavy construction equipment at the site would have the potential to be occasionally heard when the equipment is operating with heavy loads and/or at maximum power. However, these residences are exposed to high ambient noise levels due to nearby traffic, rail, industrial, and commercial sources. Thus, existing noise sources would dominate the noise environment at these locations, and sporadic construction activity noise would not contribute measurably to the soundscape (and may not even be audible for the majority of time). The residences in La Puente and unincorporated Los Angeles County would experience lower construction-generated noise levels than the residences on Chestnut Street. These residential receptors would also be subject to relatively high ambient noise levels due to nearby transportation and stationary sources. Therefore, these receptors outside of the City of Industry would not be expected to experience significant noise levels from project construction activities.

Additionally, construction activities would occur during the least noise-sensitive portions of the day. The Los Angeles County Code (and by extension, the City of Industry) limits noise sources associated with construction, repair, remodeling, or grading of any real property to the hours between 7:00 AM and 7:00 PM on weekdays and Saturdays. With adherence to these allowable hours of construction, and given the dominance of traffic, industrial, and commercial noise sources throughout the area and the short-term nature of project construction, the impact from project-related construction noise levels would be less than significant, and no mitigation measures are required.

Impact 5.5-2 The proposed project would expose sensitive uses to strong levels of groundborne vibration. [Threshold N-2]

Impact Analysis: Potential vibration impacts associated with development projects are usually related to the use of heavy construction equipment during demolition and grading phases of construction and/or the

operation of large trucks over uneven surfaces during project operations. The City of Industry employs the Los Angeles County Code to set quantitative standards for vibration impacts. County Code Section 12.08.560, Vibration, prohibits operating or permitting the operation of any device that creates vibration that is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way. The perception threshold is to be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz (Hz). Since this is a perception-related standard, it will be used for the vibration annoyance assessment. As a supplementary consideration, the FTA standard for structural damage of 0.200 in/sec will be used for the assessment of architectural damage impacts.

Operations Vibration Impacts

The project site would serve as a warehousing facility, with on-site truck and trailer movements (primarily near the loading bays of the proposed buildings). Operation of the warehouse/office buildings would not involve any mechanical equipment that would induce significant groundborne vibration. The proposed project would, however, involve the movements of heavy tractors and trailers.

Vibration from vehicles is dependent on vehicle speed and weight, plus the presence of surface discontinuities. Due to site constraints and road geometry, these truck movements would occur at very low speeds (less than 15 miles per hour). Traffic flows, including heavy trucks traveling on a highway, rarely generate vibration amplitudes high enough to cause structural or cosmetic damage, even with notable potholes or degraded railroad crossings (Caltrans 2004). Because vibration dissipates rapidly with distance and trucks would be traveling at very low speeds over freshly refurbished and smooth surfaces within the project site, vibration effects during project operation at the nearest residences would not be perceptible or result in any undue effects. Thus, vibration impacts during project operations would be less than significant.

Construction Vibration Impacts

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures, but can achieve the audible and perceptible ranges in buildings close to the construction site. Table 5.5-9, Vibration Levels for Construction Equipment, lists vibration levels for construction equipment.

Table 5.5-9 Vibration Levels for Construction Equipment

Equipment	Approximate Velocity Level at 25 Feet (VdB)	Approximate RMS[1] Velocity at 25 Feet (in/sec)
Pile Driver (impact) Upper Range	112	1.518
Pile Driver (impact) Lower Range	104	0.644
Pile Driver (sonic) Upper Range	105	0.734
Pile Driver (sonic) Lower Range	93	0.170
Large Bulldozer	87	0.089
Caisson Drilling	87	0.089
Jackhammer	79	0.035

Table 5.5-9 Vibration Levels for Construction Equipment

Equipment	Approximate Velocity Level at 25 Feet (VdB)	Approximate RMS[1] Velocity at 25 Feet (in/sec)
Small Bulldozer	58	0.003
Loaded Trucks	86	0.076
FTA Criteria – Human Annoyance (Residential Daytime/ Residential Nighttime)	78/72	—
FTA Criteria – Human Annoyance (Office)	84	—
FTA Criteria – Structural Damage	—	0.200

Source: FTA 2006
[1] RMS velocity calculated from vibration level (VdB) using the reference of 1 microinch per second.

As shown in Table 5.5-9, vibration generated by certain vibration-intensive construction equipment has the potential to be substantial, since these items have the potential to exceed the FTA criteria for structural damage of 0.200 in/sec and the County criteria of 0.01 in/sec for vibration annoyance. However, groundborne vibration is almost never annoying to people who are outdoors, so it is usually evaluated in terms of indoor receivers (FTA 2006).

The project would construct warehouse/office buildings on a currently vacant lot. The project site is generally level, so relatively little heavy earthwork would be required. Thus, there would be limited use of vibration-inducing construction equipment such as bulldozers, graders, jackhammers, and loaders/backhoes. Construction would primarily employ equipment that would not generate substantial levels of vibration, including forklifts, cranes, and haul trucks. The use of high-vibration equipment, such as pile drivers or vibratory rollers, is not anticipated. Construction activities would start as early as the winter of 2016 and would take approximately 11 months.

Vibration-Induced Architectural Damage

The threshold at which there is a risk of architectural damage to typical wood-framed buildings is 0.2 in/sec (FTA 2006). Building damage is not normally a factor unless the project requires blasting and/or pile driving (FTA 2006). No blasting, pile driving, or hard rock ripping/crushing activities are anticipated for the proposed project. Small construction equipment generates vibration levels less than 0.1 PPV in/sec at 25 feet away.

Table 5.5-10, Construction Vibration Levels at Nearest Buildings, shows the peak particle velocities of some common construction equipment and haul trucks (loaded trucks).

Table 5.5-10 Construction Vibration Levels at Nearest Buildings

Equipment	Peak Particle Velocity in inches per second		
	Industrial South of Bldg. B (20 ft.)	Industrial to East (65 ft.)	Industrial South of Bldg. C (80 ft.)
Vibratory Roller	0.293	0.050	0.037
Large Bulldozer	0.124	0.021	0.016
Loaded Trucks	0.106	0.018	0.013
Jackhammer	0.049	0.008	0.006
Small Bulldozer	0.004	0.001	0.001

Source: FTA 2006
Bold numbers indicate values that exceed FTA architectural damage criteria.

The nearest buildings to the project site are the industrial buildings to the south of the project's Building B, the westernmost of which is approximately 20 feet from the edge of the construction site. The criteria for

architectural damage would be exceeded if a vibratory roller is operated within 30 feet of the building. No other standard construction equipment would have the potential to exceed the damage threshold.

Other nearby industrial buildings are located 65 feet to the east or at least 80 feet to the south of the project site boundary. As shown above in Table 5.5-10, vibration levels from standard construction equipment would not exceed the 0.200 in/sec PPV level for architectural damage at these distances.

With Mitigation Measure N-1, the maximum construction-related vibration level would be below the 0.2 PPV in/sec criteria for vibration-induced architectural damage at all nearby structures, and architectural-damage vibration impacts from construction would be less than significant.

Vibration Annoyance

The threshold for vibration annoyance at vibration-sensitive uses is 0.01 in/sec (at or beyond the property boundary of the source, if on private property, or at 150 feet from the source, if on a public space or public right-of-way). Vibration is typically noticed nearby when objects in a building generate noise from rattling windows or picture frames. Vibration is typically not perceptible outdoors, and therefore impacts are based on the distance to the nearest building (FTA 2006). The effect on buildings near a construction site depends on soil type, ground strata, and receptor building construction. Vibration can range from no perceptible effects at the lowest levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight damage at the highest levels.

Since vibration dissipates quickly with distance and the nearest sensitive receptors, i.e., the residences on Chestnut Street, are 950 feet from the center of the construction zone, vibration levels would be expected to be in the range of approximately 26 to 62 VdB (for small bulldozers on the low end to vibratory rollers on the upper end). These velocity levels would convert to approximately 0.0001 to 0.0053 in/sec RMS velocity, all of which are well below the 0.01 in/sec threshold for vibration-induced annoyance. Additionally, construction would take place during the least sensitive hours of the day when fewer people would be expected to be in the nearest residences. Therefore, construction-related vibration would not exceed annoyance impact thresholds at the nearest sensitive receptors.

The proposed project would result in less than significant operational vibration impact without mitigation and less than significant construction vibration impact with mitigation.

Impact 5.5-3: Buildout of the proposed project would not cause a substantial noise increase related to traffic on local roadways. [Thresholds N-1 and N-3]

Impact Analysis: Development of the proposed project would cause increases in traffic along local roadways. Traffic noise levels were estimated using the FHWA Highway Traffic Noise Prediction Model. Traffic volumes for existing and 2017 conditions—without and with the project—were obtained from the traffic impact analysis prepared for the project (Appendix H). The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic flows, vehicle speeds, car/truck mix, length of exposed roadway, and road width. The distances to the 70, 65, and 60 CNEL contours for selected roadway segments in the vicinity of the project site are included in Appendix G.

A potentially significant impact could occur if the project contribution is 5 dBA or greater and the existing plus project noise levels remain within the General Plan's noise compatibility standards (e.g., 65 dBA CNEL at a

residential, noise-sensitive location); or the project contribution is 3 dBA or greater and the existing plus project noise level meets or exceeds the General Plan's noise compatibility standards.

Table 5.5-11, Existing Conditions Traffic Noise Increase, presents the noise level increases on roadways over existing conditions at 50 feet from the centerline of each roadway segment.

Table 5.5-11 Existing Conditions Traffic Noise Increases

Roadway	Segment	Existing	Existing plus Project	Increase	Potentially Significant?
Azusa Avenue	Gemini St to Salais St	78.6	78.6	0.0	No
Azusa Avenue	Salais St to Hurley St	78.6	78.7	0.1	No
Azusa Avenue	Hurley St to Railroad St	79.6	79.6	0.0	No
Azusa Avenue	Railroad St to Gale Ave	80.0	80.1	0.1	No
Azusa Avenue	Gale Ave to SR 60	84.7	84.8	0.1	No
Azusa Avenue	SR 60 to Colima Rd	83.6	83.6	0.0	No
Anaheim & Puente Road	Arenth Ave to Azusa Ave	60.8	60.8	0.0	No
Salais Street	Dora Guzman Ave to Azusa Ave	60.0	60.1	0.1	No
Salais Street	Azusa Ave to Hambledon Ave	60.8	60.9	0.1	No
Hurley Street	Dora Guzman Ave to Azusa Ave	61.8	61.9	0.1	No
Hurley Street	Azusa Ave to Valley Blvd	66.2	66.5	0.3	No
Valley Boulevard	Ferrero Ln to Hurley St	78.8	78.9	0.1	No
Valley Boulevard	Hurley St to Fullerton Rd	79.7	79.7	0.0	No
Chestnut Street	Bixby Dr to Anaheim & Puente Rd	63.7	63.7	0.0	No
Chestnut Street	Anaheim & Puente Rd to Virgil Waters Way	60.0	60.3	0.3	No
Hatcher Ave	Virgil Waters Way to Rowland St	59.9	60.0	0.1	No
Hatcher Ave	Rowland St to Lawson St	61.1	61.5	0.4	No
Railroad Street	Azusa Ave to Curl Ct	68.5	68.6	0.1	No
Railroad Street	Curl Ct to Hatcher Ave	68.4	68.4	0.0	No
Rowland Street	Hatcher Ave to Lawson St	67.9	67.9	0.0	No
Gale Avenue	Bixby Dr to Azusa Ave	74.0	74.0	0.0	No
Gale Avenue	Azusa Ave to Hatcher Ave	73.1	73.1	0.0	No

Notes: Traffic noise model calculations included in Appendix G. All noise levels are at 50 feet from each roadway centerline.

Table 5.5-11 shows that project-related traffic noise increases along roadways would be no greater than 0.4 dB along all roadway segments. Therefore, traffic noise increases for existing plus project conditions would be less than significant along all roadway segments in the study area.

Table 5.5-12, 2017 Conditions Traffic Noise Increases, presents the noise level increases on roadways over 2017 conditions at 50 feet from the centerline of each roadway segment. These results account for the growth in transportation demand in the general region and include the increases that would occur due to implementation of the proposed project.

Table 5.5-12 2017 Conditions Traffic Noise Increases

Roadway	Segment	2017 No Project	2017 plus Project	Increase	Potentially Significant?
Azusa Avenue	Gemini St to Salais St	78.7	78.7	0.0	No
Azusa Avenue	Salais St to Hurley St	78.8	78.8	0.0	No
Azusa Avenue	Hurley St to Railroad St	79.8	79.8	0.0	No
Azusa Avenue	Railroad St to Gale Ave	80.2	80.3	0.1	No
Azusa Avenue	Gale Ave to SR 60	84.9	85.0	0.1	No
Azusa Avenue	SR 60 to Colima Rd	83.8	83.9	0.1	No
Anaheim & Puente Road	Arenth Ave to Azusa Ave	60.8	60.8	0.0	No
Salais Street	Dora Guzman Ave to Azusa Ave	60.2	60.3	0.1	No
Salais Street	Azusa Ave to Hambledon Ave	61.0	61.1	0.1	No
Hurley Street	Dora Guzman Ave to Azusa Ave	62.0	62.0	0.0	No
Hurley Street	Azusa Ave to Valley Blvd	66.6	66.8	0.2	No
Valley Boulevard	Ferrero Ln to Hurley St	79.0	79.0	0.0	No
Valley Boulevard	Hurley St to Fullerton Rd	79.8	79.8	0.0	No
Chestnut Street	Bixby Dr to Anaheim Puente Rd	63.7	63.7	0.0	No
Chestnut Street	Anaheim & Puente Rd to Virgil Waters Way	60.2	60.5	0.3	No
Hatcher Ave	Virgil Waters Way to Rowland St	59.9	60.2	0.3	No
Hatcher Ave	Rowland St to Lawson St	61.2	61.6	0.4	No
Railroad Street	Azusa Ave to Curl Ct	68.6	68.8	0.2	No
Railroad Street	Curl Ct to Hatcher Ave	68.5	68.5	0.0	No
Rowland Street	Hatcher Ave to Lawson St	68.1	68.1	0.0	No
Gale Avenue	Bixby Dr to Azusa Ave	74.1	74.1	0.0	No
Gale Avenue	Azusa Ave to Hatcher Ave	73.2	73.2	0.0	No

Notes: All noise levels are at 50 feet from each roadway centerline. Traffic noise model calculations included in Appendix G.

Table 5.5-12 shows that traffic noise increases along roadways would be up to 0.4 dBA CNEL due to implementation of the proposed project. However, no segments would experience noise increases greater than 3 dBA. Therefore, traffic noise increases for 2017 conditions would be less than significant along all roadway segments in the study area.

Impact 5.5-4: Noise-sensitive uses would not be exposed to elevated noise levels from stationary sources. [Thresholds N-1 and N-3]

Impact Analysis: An impact could be significant if the project would site a sensitive land use in a location where noise levels would exceed the appropriate standards. Community noise standards can be separated into two main categories: (1) those dealing with land use compatibility (i.e., potential impacts of existing and/or future environmental noise sources onto the project site); and (2) those dealing with noise ordinance compliance (i.e., potential impacts of the proposed project onto nearby or adjoining receptors).

On-Site Impacts (Land Use Compatibility Standards)

The noise section of the City of Industry's General Plan Safety Element sets as a goal a community noise equivalent level (CNEL) of up to 75 decibels on the A-weighted scale (dBA) as normally acceptable and up to 80 dBA CNEL as conditionally acceptable for industrial land uses, including the proposed project site. The City sets a standard for both single-family and mobile home dwellings of 50 to 60 dBA CNEL as normally acceptable and 55 to 70 dBA CNEL as conditionally acceptable.

Based on the noise analysis in the City of Industry General Plan Update EIR noise analysis (Industry 2014b), both existing (2014) and future (2035+) noise levels at the project site will generally be between 60 and 75 dBA CNEL. Specifically, proposed Buildings C and D would have environmental noise between 60 and 65 CNEL, while proposed Buildings A, B, and E would experience environmental noise between 63 and 74 CNEL, due to traffic flows and rail pass-bys on adjacent/nearby roadways and railways. These exterior noise levels would fall within the normally acceptable land use compatibility classification for an industrial usage. Therefore, the noise environment for the entire site would conform to the land use compatibility guidelines of the City's Safety Element policies (for exterior environments). However, it is important to note that with the recent California Supreme Court decision regarding the assessment of the environment's impacts onto proposed projects (*California Building Industry Association v. Bay Area Air Quality Management District* [Case No. S213478], issued December 17, 2015), it is generally not the purview of CEQA to evaluate the impact of existing environmental conditions on any given project. For noise, the application of this ruling means that the analysis of traffic, rail, and aircraft noise effects at the project site—regarding land use compatibility issues—is no longer part of CEQA. Therefore, noise effects from nearby roadways and railways relative to the proposed project's land use compatibility are no longer a topic for impact evaluation under CEQA, and no statement of impact significance is germane.

Off-Site Impacts (Noise Ordinance Standards)

The County of Los Angeles Noise Control Ordinance (County Code Section 12.08) establishes that the impact would be significant if project-related stationary noise exceeded any of the following:

- The noise standard of 45 dBA between the hours of 10:00 PM and 7:00 AM and 50 dBA between the hours of 7:00 AM to 10:00 PM for a cumulative period of more than 30 minutes in any hour (i.e., the L_{50} noise level metric)
- The noise standards plus 5 dBA for a cumulative period of more than 15 minutes in any hour (i.e., the L_{25} noise level metric)
- The noise standards plus 10 dBA for a cumulative period of more than 5 minutes in any hour, (i.e., the L_{08} noise level metric)
- The noise standards plus 15 dBA for a cumulative period of more than 1 minute in any hour (i.e., the L_{02} noise level metric)
- The noise standards plus 20 dBA (i.e., the L_0 or L_{max} noise level metric) for any period of time (i.e., 65 dBA at night and 70 dBA during the day).

With respect to projected increases, noise impacts can be broken down into three categories. The first is "audible" impacts, which refer to increases in noise level that are perceptible to humans. Audible increases in noise levels generally refer to a change of 3 dBA or more, since this level has been found to be the threshold

of perceptibility in exterior environments. The second category, "potentially audible" impacts, refers to a change in noise level between 1 and 3 dBA. This range of noise levels was found to be noticeable to sensitive people in laboratory environments. The last category includes changes in noise level of less than 1 dBA that are typically "inaudible" to the human ear except under quiet conditions in controlled environments. Only audible changes in noise levels at sensitive receptor locations (i.e., 3 dBA or more) are considered potentially significant.

Stationary source impacts include noise generated from on-site mechanical equipment and, for the purposes of this analysis, trucking operations while within the confines of the project property. These sources have the potential to create noise impacts in the adjoining community.

Project Mechanical Equipment

On-site heating, ventilation, and air conditioning (HVAC) units and associated equipment attached to the warehouse structure would be acoustically engineered with appropriate procurement specifications, sound enclosures, and parapet walls to minimize noise—all in accordance with City of Industry noise emissions requirements—to ensure that such equipment does not exceed allowable noise limits. Thus, through compliance with pertinent local noise regulations, noise levels from project mechanical equipment would be less than significant.

Passing Trucks

Trucks accessing the project site would leave Azusa Avenue at a reduced speed and would travel away from the closest sensitive receptors (i.e., the residences on Chestnut Street). Because the speed of these on-site trucks would be reduced (in comparison to their flow rate on Azusa Avenue) and the trucks would be increasing the distance from the receptors, on-site truck pass-by noise would be well below the levels these residents currently experience from traffic flows on Azusa Avenue. Thus, noise levels from project-generated passing trucks would be less than significant.

Loading Bay Operations

On-site truck operations would be considered a stationary noise source subject to the County's noise regulation limitations (see Table 5.5-4). The end-user of the proposed project is currently unknown. Operations could potentially be conducted 24 hours a day or solely during daytime business hours (here assumed to be 7:00 AM to 6:00 PM). Both scenarios will be evaluated in this analysis.

Noise measurements at a variety of similar projects (e.g., Home Depot loading bays, Consolidated Volume Transport truck scales, Macy's truck transfer yard) have demonstrated that the noise produced by idling/maneuvering semi-trucks is typically on the order of 70 to 73 dBA L_{eq} at a distance of 50 feet. The primary noise descriptors in the County ordinances are in terms of several L_n noise level metrics (i.e., L_{50}, L_{25}, L_8, L_2, and L_0), not the L_{eq} metric. Therefore, for the purposes of this analysis, the following relationships between noise level metrics were used to evaluate compliance with County ordinances:[1]

- $L_{50} \approx L_{eq} - 3$ dB
- $L_{25} \approx L_{eq}$

[1] Noise level relationships established via reference measurements for a proposed trucking operation project in the City of Industry. Data taken on 8/23/12 for Parriott/Macy's Trucking Project (PlaceWorks 2012).

- $L_8 \approx L_{eq} + 3$ dB
- $L_2 \approx L_{eq} + 7$ dB
- $L_0 \approx L_{eq} + 10$ dB

Therefore, the noise levels (as measured at a distance of 50 feet from the activity) shown in Table 5.5-13, Source Noise Levels for Complete Trucking Operations at Reference Distance of 50 Feet, are used in this impact assessment.

Table 5.5-13 Source Noise Levels for Complete Trucking Operations at Reference Distance of 50 Feet

L_{eq}[1]	L_{50}	L_{25}	$L_{8.3}$	$L_{1.6}$	$L_0 = L_{max}$
73 dBA	70 dBA	73 dBA	76 dBA	80 dBA	83 dBA

Source: Caltrans 2009; PlaceWorks 2012 (measurements of truck operations for Parriott/Macy's Truck Yard Project)
Notes: Source noise levels for trucking operations include truck approach, maneuvering, backing, warning beeps, trailer coupling/de-coupling, idling, air brake discharge, and pull-away.
[1] Entry not applicable for the proposed project operations (see text). This information is shown for completeness only.

For purposes of this impact assessment, the proposed project's five warehouse buildings are assumed to accept up to 447 trucks per day combined (RK Engineering 2015). By state law, diesel trucks are prohibited from idling for more than 5 minutes at any one location. Additionally, it is assumed for this assessment that the maneuvering operation for any given truck would take no more than 3 to 5 minutes. Thus, the combination of maneuvering and parking and idling near or in the project's loading bays would take a maximum of 10 minutes.

The 447 trucks per day would be distributed between the five buildings on the project site. For the purposes of this analysis, distances to receptors were measured from the center of the project site in order to represent the average of the distances to all the buildings (see Figure 3-4, Proposed Site Plan). The nearest noise-sensitive receptors (single-family residences on Chestnut Street) are approximately 950 feet from the center of the project site. These residences would experience 26 dB of sound reduction due to distance attenuation, approximately 15 dB of attenuation due to intervening buildings, and approximately 5 dB due to barrier effects provided by the elevated Azusa Avenue.

24-Hour Operations: If truck traffic were to be evenly distributed over 24-hour operations, 18.63 trucks (on average) would be in or around the loading bays on an hourly basis. These 18.63 trucks, with a maximum loading duration of 10 minutes each, would have an effective, averaged period of 186.3 minutes (i.e., 18.63 trucks per hour multiplied by a 10-minute per-truck operations period) or 3.1 simultaneous truck operations. That is, there would be an average of about 3.1 trucks idling or maneuvering around the loading docks during any given daytime hour. The noise level produced by 3.1 trucks operating simultaneously is approximately 5 dB higher (on a time-averaged basis) than the noise level produced by a single truck. Given that the time-averaged duration would be greater than 50 percent of an hour and operations would occur 24 hours a day, all of the percentile noise metrics (i.e., L_{50}, L_{25}, L_8, L_2, and L_0) in the standards would be applicable for both daytime and nighttime.

The calculated noise levels at the receptors and their relationship to the pertinent stationary noise level limits are shown in Table 5.5-14, Compliance Assessment for Truck Maneuvering Activities for 24-Hour Operations. As shown, noise levels from the expected number and duration of trucking activities near or in the loading bays of the proposed project would not exceed the noise level standards in the pertinent sound level metrics during either daytime or nighttime periods and therefore are in compliance. Thus, 24-hour operations would not result in impacts at residences on Chestnut Street and would not violate the City of La Puente Municipal Code, Section 4.34.020(c).

Table 5.5-14 Compliance Assessment for Truck Maneuvering Activities for 24-Hour Operations

Parameter	A-weighted Sound Level by Metric, dBA				
	L_{50}	L_{25}	$L_{8.3}$	$L_{1.6}$	$L_0 = L_{max}$
Calculated Project-Generated Noise Level (dBA)	29	32	35	39	42
Limit: Daytime Residential (dBA)	50	55	60	65	70
Limit: Nighttime Residential (dBA)	45	50	55	60	65
Compliance?	Yes	Yes	Yes	Yes	Yes

Notes: Includes truck approach, maneuvering, backing, warning beeps, trailer coupling/de-coupling, idling, air brake discharge, and pull-away.
Calculations included in Appendix G.

Daytime-Only Operations: If truck traffic were to be evenly distributed throughout a typical 11-hour daytime operations shift (i.e., 7:00 AM to 6:00 PM), 40.64 trucks (on average) would be in or around the loading bay on an hourly basis. Once again, the time-averaged duration would be greater than 50 percent of an hour (i.e., 40.64 trucks per hour times a 10-minute per-truck operations period is 406.4 truck-minutes per hour or 6.8 simultaneous truck operations). That is, there would be an average of approximately 6.8 trucks idling or maneuvering around the loading docks during any given daytime hour. The noise level produced by 6.8 trucks operating simultaneously is approximately 8 dB higher (on a time-averaged basis) than the noise level produced by a single truck. Given this operations scenario, all of the percentile noise metrics (i.e., L_{50}, L_{25}, L_8, L_2, and L_0) in the standards would be applicable. However, because operations would only occur during the daytime period, nighttime noise level restrictions would not be applicable.

The calculated noise levels at the receptors and their relationship to the pertinent stationary noise level limits are shown in Table 5.5-15, Compliance Assessment for Truck Maneuvering Activities for 11-Hour Operations. As shown, noise levels from the expected number and duration of trucking activities near or in the loading bays of the proposed project would not exceed the noise level standards in the pertinent sound level metrics during the daytime period. Thus, 11-hour workday operations would not result in impacts at residences on Chestnut Street and would not violate the City of La Puente Municipal Code, Section 4.34.020(c).

Table 5.5-15 Compliance Assessment for Truck Maneuvering Activities for 11-Hour Operations

Parameter	A-weighted Sound Level by Metric, dBA				
	L_{50}	L_{25}	$L_{8.3}$	$L_{1.6}$	$L_0 = L_{max}$
Calculated Project-Generated Noise Level (dBA)	32	35	38	42	45
Limit: Daytime Residential (dBA)	50	55	60	65	70
Limit: Nighttime Residential (dBA)	Not applicable since daytime-only operations				
Compliance?	Yes	Yes	Yes	Yes	Yes

Notes: Includes truck approach, maneuvering, backing, warning beeps, trailer coupling/de-coupling, idling, air brake discharge, and pull-away.
Calculations included in Appendix G.

Noise from truck maneuvering and loading may also be experienced at the surrounding commercial/industrial properties. However, these properties are not considered noise sensitive and are already exposed to these types and levels of noise. Noise from truck maneuvering and loading would not cause substantial noise increases and would not interfere with the operation of these nearby uses.

In summary, noise levels from trucking activities near or in the loading bays of the proposed project would not exceed the noise level standards for noise-sensitive receptors and would not disrupt operations at the adjacent commercial or industrial properties.

5.5.4 Cumulative Impacts

Cumulative projects in the local area include new development and general growth in the project area. Construction of cumulative projects would increase the noise levels in the area. However, the proposed project would result in less than significant construction noise impacts without mitigation, and the potentially significant vibration-induced architectural damage impact would be limited to within 30 feet of the project site. Therefore, the proposed project would not contribute to cumulative construction impacts. Impact 5.5-3 addressed operational noise impacts in a cumulative context under the project buildout (year 2017) scenario. The analysis indicated that traffic noise increases along roadways would not result in a significant noise impact. Therefore, the proposed project would not result in cumulative construction or operational noise impacts.

5.5.5 Existing Regulations and Standard Conditions

County of Los Angeles County Code

- Title 12, Chapter 12.08: Noise Control

City of Industry General Plan Safety Element

- Policies S6-1 through S6-3

5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, Impacts 5.5-1, 5.5-3, and 5.5-4 would be less than significant.

Without mitigation, the following impacts would be potentially significant**:**

Impact 5.5-2 The proposed project would expose sensitive uses to strong levels of groundborne vibration.

5.5.7 Mitigation Measures

Impact 5.5-2

N-1 During construction, vibratory rollers shall not be operated within 30 feet of off-site buildings.

5.5.8 Level of Significance After Mitigation

Impact 5.5-2

Mitigation Measure N-1 would reduce potential construction-related vibration impacts regarding architectural damage to off-site buildings below the thresholds. No significant and unavoidable impact would remain.

5.5.9 References

Beranek, Leo. 1988. Noise and Vibration Control. Revised Edition. Washington, DC: Institute of Noise Control Engineering.

Bies, David A., and Colin H. Hansen. 2009. Engineering Noise Control: Theory and Practice, 4th ed. New York: Spon Press.

Bolt, Beranek & Newman. 1987. Noise Control for Buildings and Manufacturing Plants.

Caltrans (California Department of Transportation, Division of Environmental Analysis). 2002. Transportation Related Earthborne Vibration (Caltrans Experiences). Technical Advisory, Vibration. TAV-02-01-R9601.

———. 2004. Department of Transportation, Noise, Vibration, and Hazardous Waste Management Office. Transportation- and Construction-Induced Vibration Guidance Manual.

———. 2006. Traffic Noise Analysis Protocol.

———. 2009. Technical Noise Supplement.

EPA (US Environmental Protection Agency). 1971. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances. Washington, DC: US EPA Office of Noise Abatement and Control.

———. 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Washington, DC: US EPA Office of Noise Abatement and Control.

———. 1978. Protective Noise Levels. EPA 550/9-79-100. (Condensed version of 1971 and 1974 documents.)

FHWA (Federal Highway Administration). 1978. Federal Highway Traffic Noise Prediction Model. US Department of Transportation. Report No. FHWA-RD77-108.

FTA (Federal Transit Administration). 2006. Transit Noise and Vibration Impact Assessment. US Department of Transportation. FTA-VA-90-1003-06.

Industry, City of. 2014a. 2014 General Plan. Adopted June 12, 2014.

———. 2014b. City of Industry General Plan Update EIR (State Clearinghouse No. 2011031090).

Governor's Office of Planning and Research. 2003. State of California General Plan Guidelines.

Harris, Cyril M. 1998. Handbook of Acoustical Measurements and Noise Control, 3rd ed. Woodbury, NY: Acoustical Society of America.

PlaceWorks. 2012. Initial Study for Macy's Tractor/Trailer Storage Conditional Use Permit 10-6.

RK Engineering Group. 2015. CT Industry Center Traffic Impact Study, City of Industry, California.

SAE (Society of Automotive Engineers, Inc.). 1971. House Noise: Reduction Measurements for Use in Studies of Aircraft Flyover Noise. AIR 1081.

Thalheimer, E. 2000. Construction Noise Control Program and Mitigation Strategy at the Central Artery/Tunnel Project. Institute of Noise Control Engineering.

.

5.6 Transportation and Traffic

5.6 TRANSPORTATION AND TRAFFIC

This section evaluates the potential for implementation of the proposed project to result in transportation and traffic impacts in the City of Industry. The analysis in this section is based in part on the following documents:

- CT Industry Center Traffic Impact Study, City of Industry, California (RK Engineering Group 2015)
- CT Industry Center Supplemental Traffic Impact Study, City of Industry, California (RK Engineering Group 2016)

Complete copies of these documents can be found in Appendix H of this DEIR.

5.6.1 Environmental Setting

Traffic impact studies were prepared for the proposed project with the following objectives: (1) document existing traffic conditions in the vicinity of the site; (2) evaluate existing plus project traffic conditions; (3) evaluate project buildout (year 2017) without and with project traffic conditions; (4) determine on- and off-site improvements and system management actions needed to achieve City of Industry and California Department of Transportation (Caltrans) level of service requirements; and (5) analyze queuing at CMP state highway facilities and project gates.

5.6.1.1 EXISTING ROADWAY NETWORK

The project site is near the southeast corner of Azusa Avenue and Chestnut Street in the City of Industry. Figure 5.6-1, Traffic Study Area, shows the project site location and traffic analysis study area. As shown, project access would be via six driveways from Azusa Avenue, Virgil Waters Way, Chestnut Street, and Railroad Street. The project site driveways are shown in the site plan (see Figure 5.6-2, Proposed On-Site Circulation System). Figure 5.6-3, Existing Traffic Controls and Intersection Geometrics, shows the number of through-traffic lanes for existing roadways and the existing intersection controls. The traffic impact analysis includes impacts to the intersections, freeway segments, and freeway ramps shown in Table 5.6-1, Traffic Study Area Facilities.

Table 5.6-1 Traffic Study Area Facilities

ID	Type of Facility	Location	
		North–South	East–West
1	Intersection	Azusa Avenue	Salais Street
2	Intersection	Azusa Avenue	Hurley Street
3	Intersection	Hurley Street	Valley Boulevard
4	Intersection	Anaheim and Puente Road	Chestnut Street
5	Intersection	Virgil Waters Way	Chestnut Street
6	Intersection	Azusa Avenue	Anaheim and Puente Road
7	Intersection	Azusa Avenue	Railroad Street
8	Intersection	Curl Court	Railroad Street
9	Intersection	Chestnut Street	Railroad Street
10	Intersection	Azusa Avenue	Gale Avenue
11	Freeway Ramp	Azusa Avenue	SR 60 Westbound Ramps
12	Freeway Ramp	Azusa Avenue	SR 60 Eastbound Ramps
13	Freeway Segment	—	SR 60, east of Hacienda Blvd
14	Freeway Segment	—	SR 60, east of Azusa Blvd

According to the City of Industry General Plan Roadway Classification Plan, Azusa Avenue and Valley Boulevard are major highways; East Gale Avenue is a secondary highway; and Salais Street, Hurley Street, Chestnut Street, Anaheim and Puente Road, Railroad Street, and West Gale Avenue are collector streets. Virgil Waters Way and Curl Court are considered local streets.

Public Transit Service

Public transit services in the study area are provided on the following transit routes:

- Foothill Transit: Routes 280, M-194, 281, 285, 497, 495, 493
- Metro Line 194
- Metrolink: Riverside Line
- Amtrak Sunset Limited/Texas Eagle
- Union Pacific Railroad

Bicycling

The City of Industry's General Plan Bicycle and Pedestrian Plan is included as Exhibit E-4 of the traffic impact study (see Appendix H of the DEIR). There are no bicycle or pedestrian paths near the traffic study area.

5.6.1.2 ANALYSIS METHODOLOGY

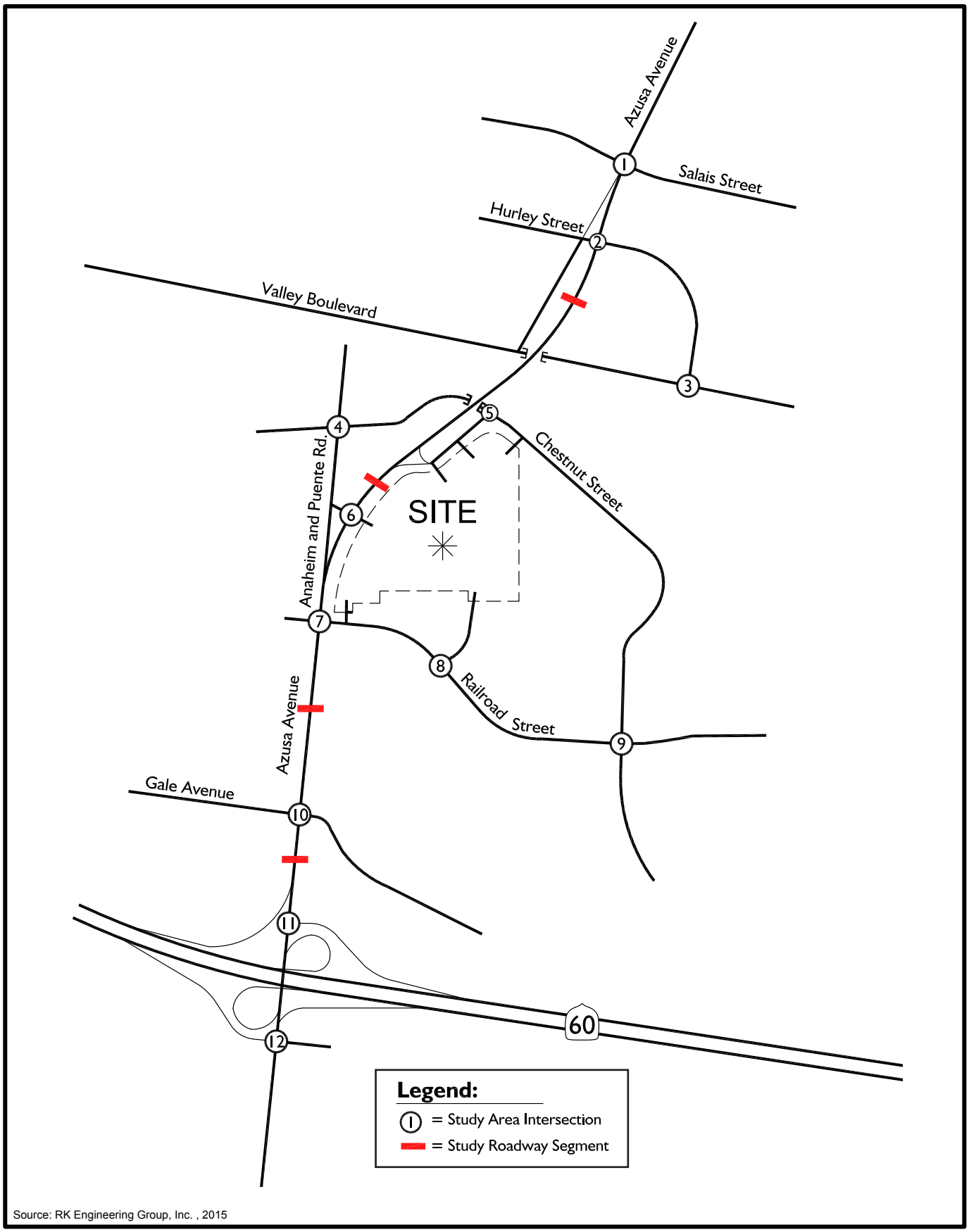
The methodologies used to assess the operation of the signalized study area intersections are both the Intersection Capacity Utilization (ICU) methodology and the 2000 Highway Capacity Manual (HCM) methodology. Traffix software was used to calculate the ICU and HCM methodology at the study intersections. The ICU methodology was used to analyze the signalized study area intersections under the City's jurisdiction, and HCM was used to analyze the city's unsignalized study area intersections. The HCM methodology is also used to analyze the two signalized freeway ramp intersections, per Caltrans methodology requirements.

ICU Methodology

To calculate the ICU, the volume of traffic using the intersection is compared with the capacity of the intersection. ICU is usually expressed as a ratio. This ratio represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. The following identifies the assumptions and terms used under the ICU methodology.

Saturation Flow Rate: Saturation flow value of 1,600 vehicles per lane per hour for all through and turn lanes; saturation flow value of 2,880 vehicles per lane per hour for dual turn lanes.

T:_CS\Work\Industry, City of\Chestnut EIR\Figures



Source: RK Engineering Group, Inc. , 2015

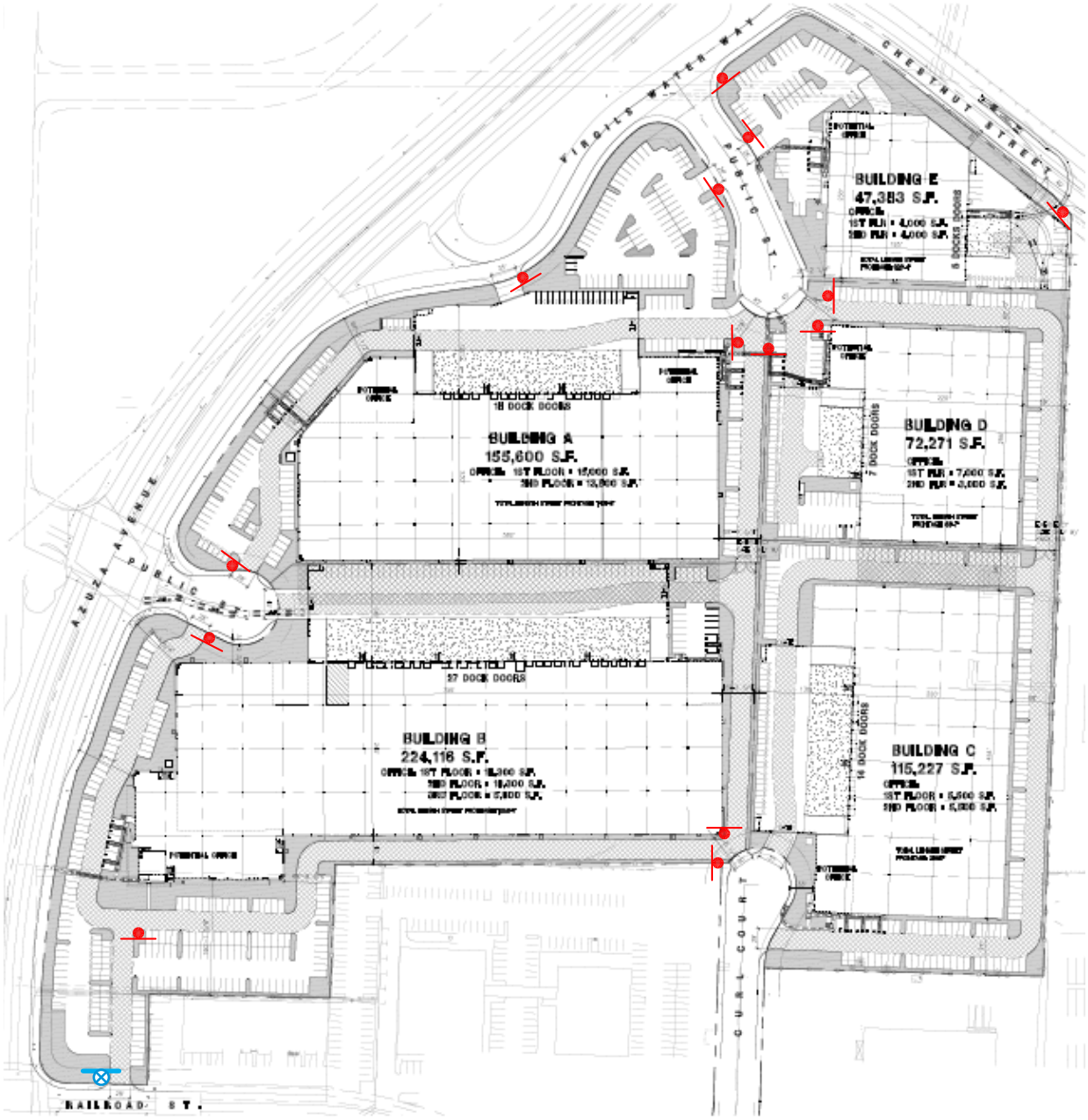
Not To Scale

FIGURE 5.6-1
Traffic Study Area

Michael Baker INTERNATIONAL

This page intentionally left blank.

T:_CS\Work\Industry, City of\Chestnut EIR\Figures



Note:

It is recommended to only have one (1) lane in each direction for the on-site circulation streets.

Legend:

= Install stop sign, stop bar, and stop legend

= Install stop sign, stop bar, stop legend, and right turn only sign

Source: RK Engineering Group, Inc. , 2015

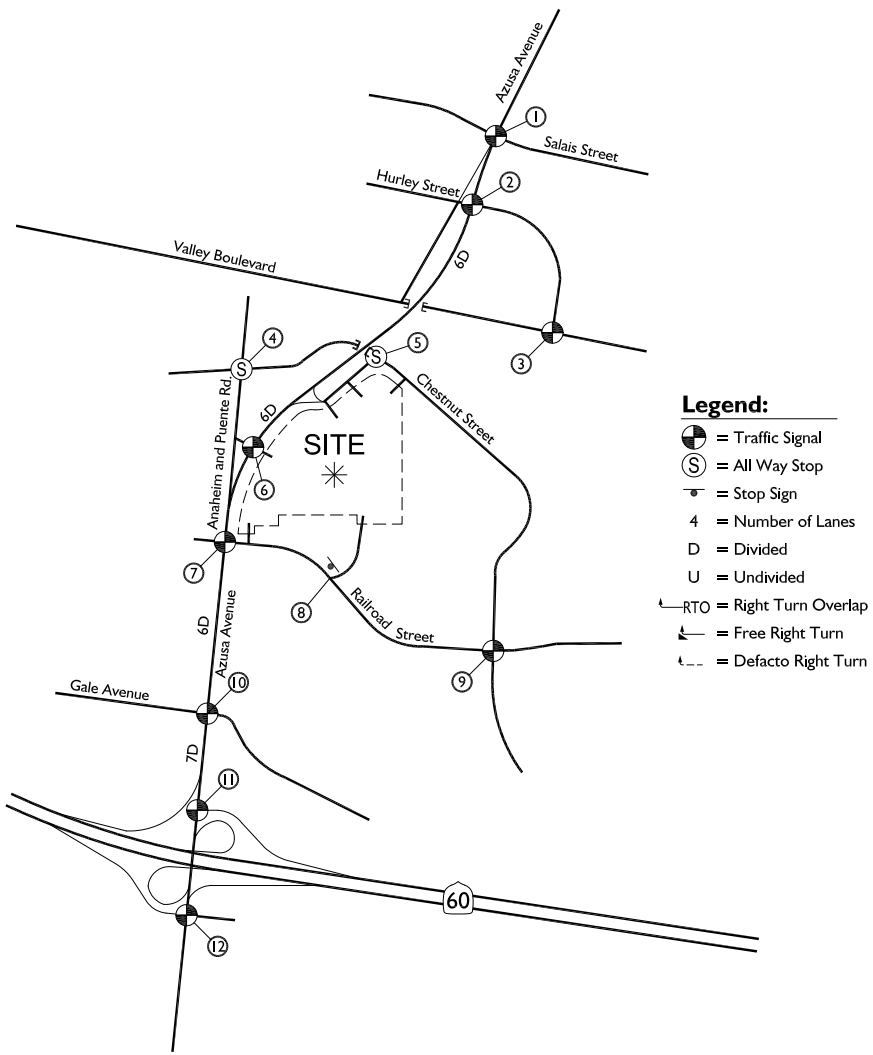
Not To Scale

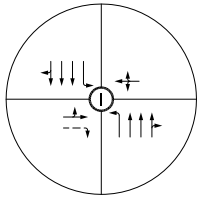
FIGURE 5.6-2

Proposed Onsite Circulation System

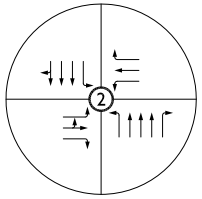
Michael Baker INTERNATIONAL

This page intentionally left blank.

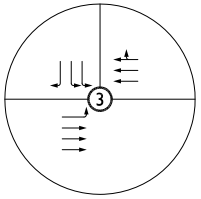




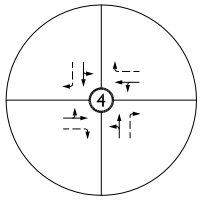
1. Azusa Avenue (NS) & Salais Street (EW)



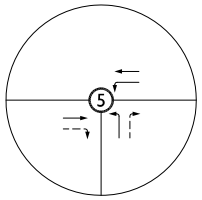
2. Azusa Avenue (NS) & Hurley Street (EW)



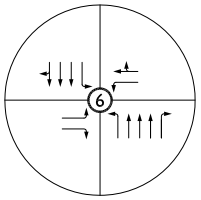
3. Hurley Street (NS) & Valley Boulevard (EW)



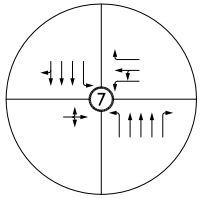
4. Anaheim & Puente Road (NS) & Chestnut Street (EW)



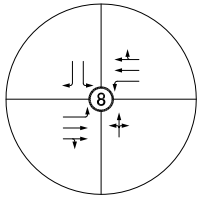
5. Virgil Waters Way (NS) & Chestnut Street (EW)



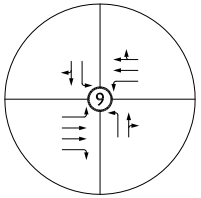
6. Azusa Avenue (NS) & Anaheim & Puente Road (EW)



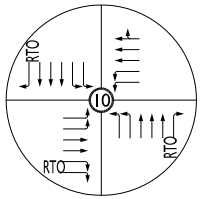
7. Azusa Avenue (NS) & Railroad Street (EW)



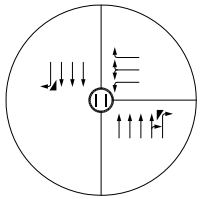
8. Curl Court (NS) & Railroad Street (EW)



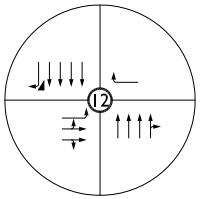
9. Chestnut Street (NS) & Railroad Street (EW)



10. Azusa Avenue (NS) & Gale Avenue (EW)



11. Azusa Avenue (NS) & CA-60 Westbound Ramps (EW)



12. Azusa Avenue (NS) & CA-60 Eastbound Ramps (EW)

Source: RK Engineering Group, Inc., 2015

Not To Scale

FIGURE 5.6-3

Existing Lane Geometry and Intersection Controls

Michael Baker INTERNATIONAL

This page intentionally left blank.

Clearance Internal and Cycle Time: A clearance interval factor of 10 percent (0.10) is applied to the ICU calculations. The cycle time is 100 seconds.

Level of Service Ranges: Table 5.6-2, ICU Level of Service Ranges, shows the thresholds used in assigning a letter value to the resulting levels of service (LOS).

Table 5.6-2 ICU Level of Service Ranges

LOS	Critical Volume-to-Capacity Ratio
A	0.00–0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	>1.00

Peak Periods: Weekday peak-hour analysis periods are defined as 7:00 to 9:00 AM and 4:00 to 6:00 PM.

Peak Hour: The highest one-hour period in both the AM and PM peak periods, as determined by four consecutive 15-minute count periods, are used in the ICU calculations. Both AM and PM peak hours are studied.

Peak-Hour Data Consistency: Variations in peak-hour volumes can affect LOS calculations because they vary from day to day. To minimize these variations, no counts are taken on Mondays, Fridays, holidays, or weekends. The traffic count worksheets are included in Appendix A of the traffic impact study (Appendix H to this DEIR).

Right Turn Movements: If the distance from the edge of the outside through lane is sufficient and parking is prohibited during the peak period, right-turning vehicles may be assumed to utilize this "unofficial" right turn lane. Otherwise, all right turn traffic is assigned to the through lane. If a right turn lane exists, right turn activity is checked for conflicts with other critical movements. It is assumed that right turn movements are accommodated during nonconflicting left turn phases (e.g., northbound right turns during westbound left turn phase) as well as nonconflicting through flows (e.g., northbound right turn movements and north/south through flows). Right turn movements become critical when conflicting movements (e.g., northbound right turns, southbound left turns, and eastbound through flows) represent a sum of volume-to-capacity (V/C) ratios that are greater than the normal through/left turn critical movements.

HCM Methodology

The HCM defines level of service as a qualitative measure of operational conditions within a traffic stream, generally in terms of speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

For signalized intersections, average control delay per vehicle is used to determine the LOS. For intersections with stop control on the minor street only, the calculation of LOS is dependent on gaps in the traffic flow of the main street, and the LOS is determined based on the worst individual movements or movements sharing a single lane. The following identifies the assumptions and terms used under the HCM methodology.

Ideal Flow Rate: Ideal flow value of 1,900 vehicles per lane per hour for all lanes.

Lost Time: A lost time of 4 seconds per phase was utilized.

Level of Service Ranges: Table 5.6-3, HCM Intersection Level of Service and Average Control Delay per Vehicle, shows the thresholds used in assigning a letter value to the resulting LOS.

Table 5.6-3 HCM Intersection Level of Service and Average Control Delay per Vehicle

LOS	Signalized	Unsignalized
A	0.00–10.00	0.00–10.00
B	10.01–20.00	10.01–15.00
C	20.01–35.00	15.01–25.00
D	35.01–55.00	25.01–35.00
E	55.01–80.00	35.01–50.00
F	>80.01	>50.01

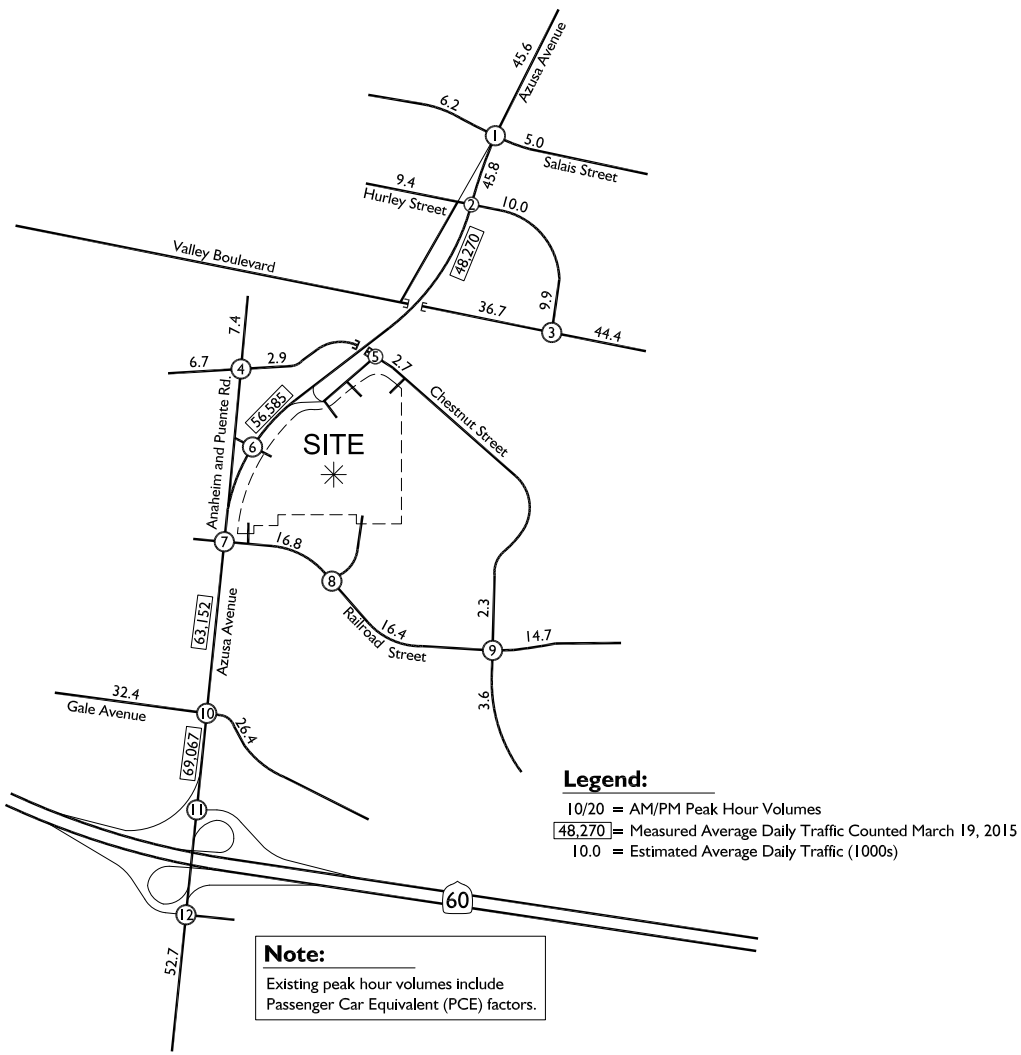
5.6.1.3 EXISTING TRAFFIC CONDITIONS

Existing Traffic Volumes

Existing AM and PM peak-hour traffic volumes for the study area intersections are shown in Figure 5.6-4, Existing Traffic Volumes. Due to the high level of truck traffic in the area, truck axle classification factors were applied to the base existing traffic counts to account for the heavy trucks. Large trucks generally occupy more space on the roadway than a typical passenger vehicle. In order to show the equivalent impacts of the trucks at the study area intersections, an adjustment factor was used to convert truck traffic into passenger car equivalents (PCE). The PCE factors used for this project are based on San Bernardino County Congestion Management Program standard factors and are as follows:

Vehicle Type	PCE Factor	Vehicle Mix
Passenger Car	1.0	0.7957
2 Axle Trucks	1.5	0.0346
3 Axle Trucks	2.0	0.0464
4+ Axle Trucks	3.0	0.1233

1. SANBAG 2005



Legend:

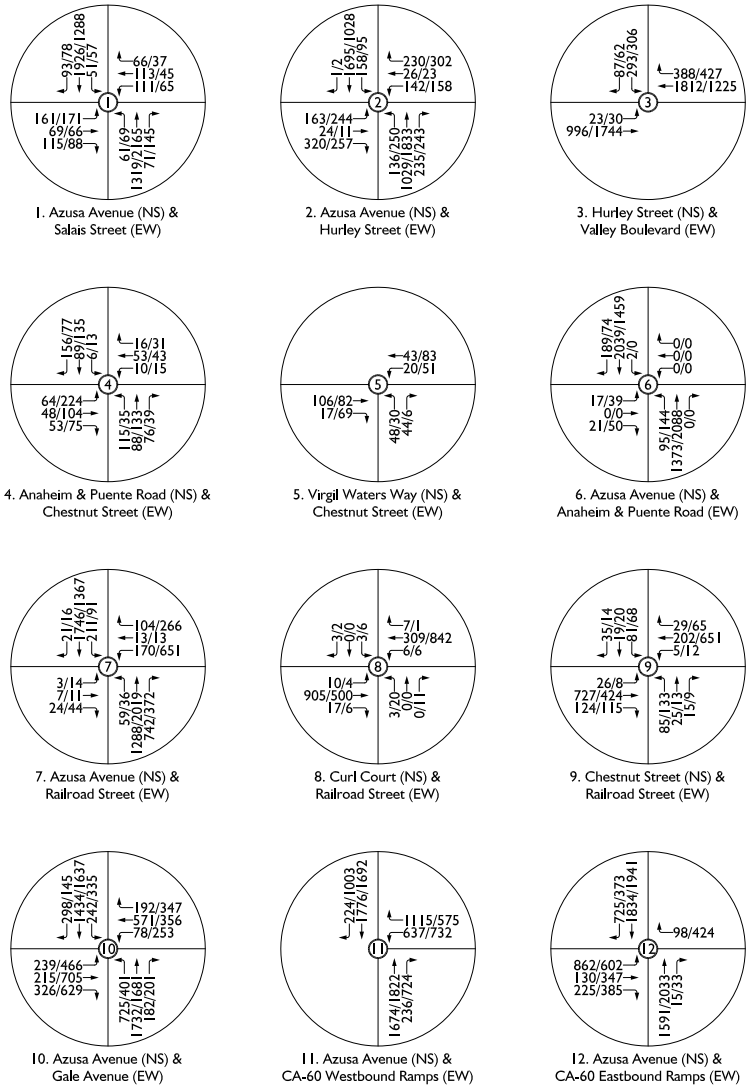
10/20 = AM/PM Peak Hour Volumes

48,270 = Measured Average Daily Traffic Counted March 19, 2015

10.0 = Estimated Average Daily Traffic (1000s)

Note:

Existing peak hour volumes include Passenger Car Equivalent (PCE) factors.



1. Azusa Avenue (NS) & Salais Street (EW)
2. Azusa Avenue (NS) & Hurley Street (EW)
3. Hurley Street (NS) & Valley Boulevard (EW)
4. Anaheim & Puente Road (NS) & Chestnut Street (EW)
5. Virgil Waters Way (NS) & Chestnut Street (EW)
6. Azusa Avenue (NS) & Anaheim & Puente Road (EW)
7. Azusa Avenue (NS) & Railroad Street (EW)
8. Curl Court (NS) & Railroad Street (EW)
9. Chestnut Street (NS) & Railroad Street (EW)
10. Azusa Avenue (NS) & Gale Avenue (EW)
11. Azusa Avenue (NS) & CA-60 Westbound Ramps (EW)
12. Azusa Avenue (NS) & CA-60 Eastbound Ramps (EW)

Source: RK Engineering Group, Inc., 2015

Not To Scale

FIGURE 5.6-4

Existing Traffic Volumes

Michael Baker INTERNATIONAL

This page intentionally left blank.

A 24-hour two-way average daily traffic (ADT) volume count was conducted at four locations along Azusa Avenue. The ADT count worksheet is provided in Appendix A of the traffic impact study (Appendix H of the DEIR). The non-surveyed ADT volumes on study area roadways were calculated based on the following formula: ADT = 12 x (PM peak-hour traffic volume)

Existing Level of Service

The existing intersection LOS is shown in Table 1 of the traffic impact study (Appendix H of this DEIR). Existing AM and PM peak-hour levels of services for study intersections and freeway ramps and segments are shown in Table 5.6-4, Existing Level of Service.

Table 5.6-4 Existing Level of Service

ID	Facility	LOS	
		AM	PM
Intersections			
1	Azusa Avenue/Salais Street	D	D
2	Azusa Avenue/Hurley Street	D	D
3	Hurley Street/Valley Boulevard	B	A
4	Anaheim and Puente Road/Chestnut Street	A	C
5	Virgil Waters Way/Chestnut Street	A	A
6	Azusa Avenue/Anaheim and Puente Road	B	A
7	Azusa Avenue/Railroad Street	C	D
8	Curl Court/Railroad Street	C	C
9	Chestnut Street/Railroad Street	A	A
10	Azusa Avenue/Gale Avenue	D	E
Freeway Ramps			
11	Azusa Avenue/SR 60 Westbound Ramps	C	C
12	Azusa Avenue/SR 60 Eastbound Ramps	C	B
Freeway Segments			
13	Eastbound SR 60, east of Hacienda Blvd	D	C
13	Westbound SR 60, east of Hacienda Blvd	C	D
14	Eastbound SR 60, east of Azusa Blvd	D	C
14	Westbound SR 60, east of Azusa Blvd	D	D

For existing traffic conditions, all study area intersections currently operate at acceptable levels of service (LOS D or better) during peak hours, with the exception of the following intersection:

- Azusa Avenue (NS) and Gale Avenue (EW): AM, 0.859 (LOS D); PM, 0.929 (LOS E)

5.6.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

T-1 Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation

system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

T-7 Result in inadequate parking capacity. (Optional: This threshold was deleted from the 2010 CEQA Guidelines)

Acceptable Level of Service

The following thresholds of significance are used to determine if project-related traffic would cause an impact at the study area intersections:

- For non-CMP signalized intersections: the ICU value under with-project conditions is 0.901 or greater (LOS E or F) and the ICU increase attributable to the project is 0.020 or greater
- For CMP signalized intersections: the ICU value under with-project conditions is 1.001 or greater (LOS F) and the ICU or V/C increase attributable to the project is 0.020 or greater
- For non-CMP unsignalized intersections: the intersection operates at LOS E or F
- For CMP unsignalized intersections: the intersection operates at LOS F

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold T-3
- Threshold T-4
- Threshold T-5
- Threshold T-6

These impacts will not be addressed in the following analysis.

5.6.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.6-1: Project-related trip generation would impact levels of service for the existing area roadway system. [Threshold T-1]

Impact Analysis: The traffic generation for the project is based on the specific land uses that have been planned for the development. The proposed project would develop a total of 614,597 square feet of building space. This includes 509,697 square feet of warehouse land use and 104,900 square feet of office land use. The office portion of the site would be used primarily for the display of goods rather than traditional office space. Therefore, the office use is combined with the warehouse use for purposes of trip generation. Project trip generation rates and resulting vehicle trips are shown in Table 5.6-5, Project Trip Generation, which is based on the Institute of Transportation Engineers (ITE) Trip Generation, 9th edition. This project is expected to attract heavy vehicle traffic due to the specific operational characteristics of the site. This would be mainly the hauling of freight by large multi-axle trucks. Therefore, in order to show the equivalent impacts of the large trucks that generally occupy more space on the roadway, the project-related trip generation has been converted to passenger car equivalents. As shown in Table 5.6-5, the proposed project is projected to generate an adjusted PCE total of 2,867 trip-ends per day, with 243 vehicles per hour during the AM peak hour and 259 vehicles per hour during the PM peak hour.

Table 5.6-5 Project Trip Generation

Land Use/Vehicle Mix	Weekday AM Peak Hour			Weekday PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Warehouse – Trip Generation Rates[1]	0.237	0.063	0.300	0.080	0.240	0.320	3.560
PCE Inbound/Outbound Splits[2]	79%	21%	100%	25%	75%	100%	—
Final Passenger Car Equivalent (PCE) Rates[3,4]							
Passenger Cars	0.189	0.050	0.239	0.064	0.191	0.255	2.833
2 Axle Trucks	0.012	0.003	0.016	0.004	0.012	0.017	0.185
3 Axle Trucks	0.022	0.006	0.028	0.007	0.022	0.030	0.330
4+ Axle Trucks	0.088	0.023	0.111	0.030	0.089	0.118	1.317
ITE Project Trip Generation							
614,597 Square Feet	146	39	185	49	148	197	2,188
ITE Trip Generation in PCE							
Passenger Cars	116	31	147	39	117	156	1,741
2 Axle Trucks	8	2	10	3	8	11	114
3 Axle Trucks	14	4	18	5	14	19	203
4+ Axle Trucks	54	14	68	18	55	73	809
Warehouse Trip Generation	192	51	243	65	194	259	2,867

Source: RK Engineering 2015
1 Warehouse Trip Generation Source: ITE Trip Generation, 9th Edition.
2 Inbound/Outbound Splits per ITE Trip Generation.
3 The rates were calculated based on recommended vehicle mix percentage per City of Fontana Truck Trip Generation Study for heavy warehouse uses, August 2003.
4 The rates were calculated based on PCE factor per San Bernardino County Congestion Management Program, 2005 Update.

Trip distribution represents the directional orientation of traffic to and from the project site. The directional orientation of traffic was determined by evaluating existing and proposed land uses and highways in the community. Detailed routing assumptions are included in Exhibits F-1 through F-4 of the traffic impact analysis (Appendix H to this DEIR), which show the proposed project's inbound and outbound trip distribution for passenger vehicles and trucks.

Existing Plus Project Traffic Volumes

Existing plus project traffic volumes were determined by combining existing traffic volumes with project traffic volumes. The AM and PM peak-hour intersection turning movement volumes and ADT are shown on Figure 5.6-5, Existing plus Project Traffic Volumes. Intersection levels of service for existing and with project conditions are shown in Table 5.6-6, Intersection Analysis Summary for Existing With and Without Project Conditions. For existing plus project traffic conditions, all study area intersections are projected to operate at acceptable levels of service (LOS D or better) during peak hours, with the exception of the following intersection:

- Azusa Avenue (NS) and Gale Avenue (EW): AM, 0.866 (LOS D); PM, 0.950 (LOS E)

As shown in Table 5.6-6, for the signalized Azusa Avenue and Gale Avenue intersection that operates at worse than LOS D, the proposed project would contribute an ICU value of more than 0.020, resulting in a significant impact. However, the following improvements to the Azusa Avenue and Gale Avenue intersection would improve the traffic condition to LOS D.

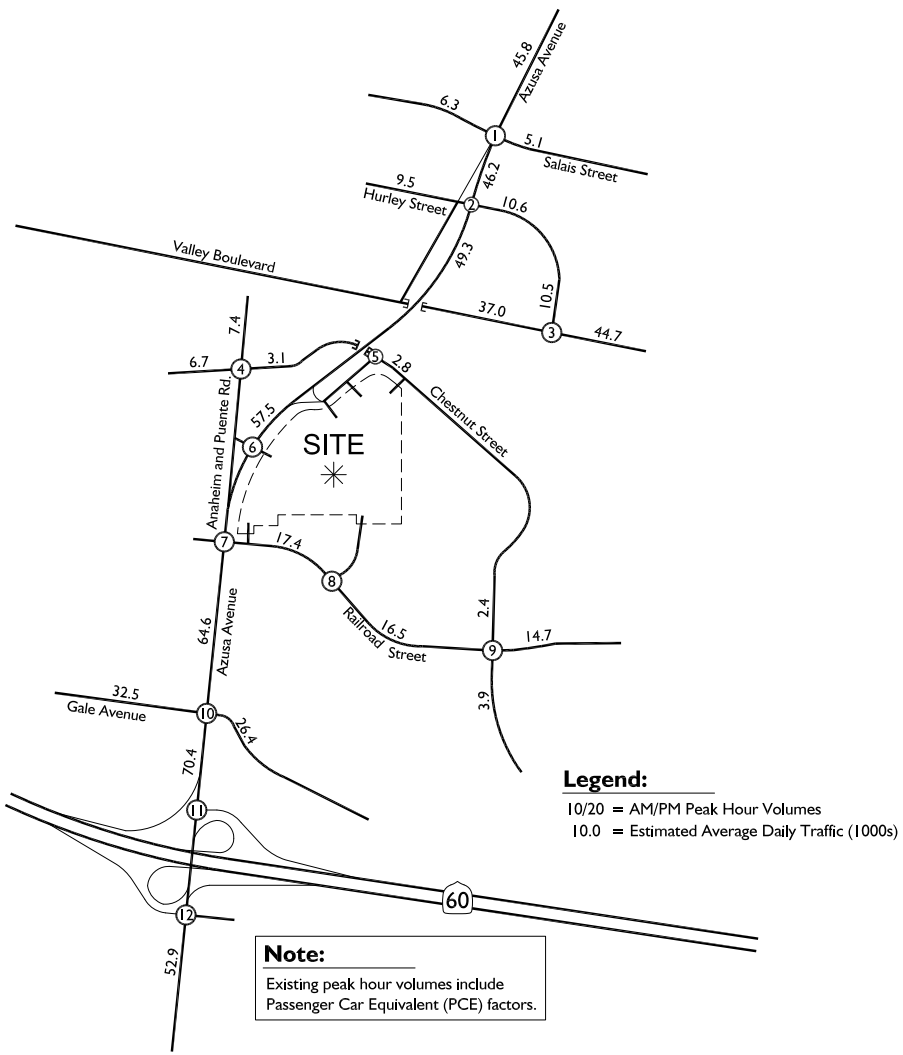
- Convert westbound through lane to a right turn lane
- Install westbound right turn overlap phase

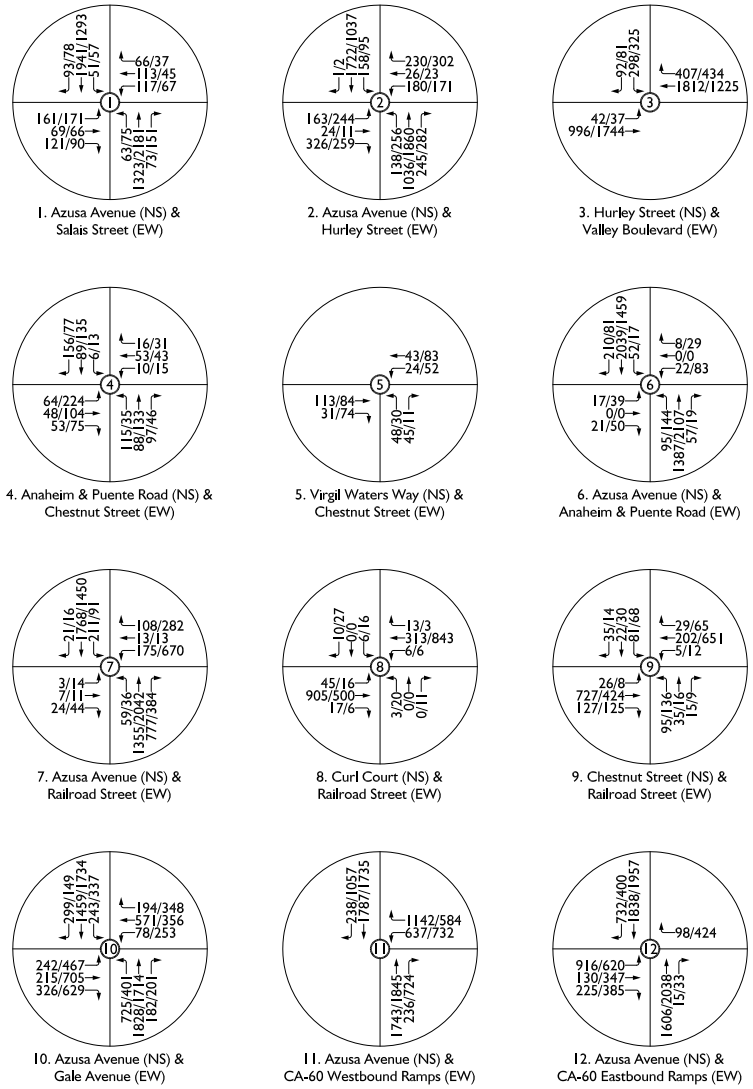
Implementation of the recommended improvements would ensure that the proposed project does not have a significant impact under the existing plus project traffic conditions.

Table 5.6-6 Facility Analysis Summary for Existing Conditions, With and Without Project

ID	Intersection ICU Methodology	Traffic Control	Existing Without Project V/C[1] – LOS		Existing With Project V/C[1] – LOS		V/C Increase	
			AM	PM	AM	PM	AM	PM
1	Azusa Ave/Salais St	TS	0.841 – D	0.816 – D	0.849 – D	0.821 – D	0.008	0.005
2	Azusa Ave/Hurley St	TS	0.882 – D	0.891 – D	0.893 – D	0.898 – D	0.011	0.007
3	Hurley St/Valley Blvd	TS	0.664 – B	0.559 – A	0.682 – B	0.570 – A	0.018	0.011
6	Azusa Ave/Anaheim & Puente Rd	TS	0.634 – B	0.566 – A	0.655 – B	0.633– B	0.021	0.067
7	Azusa Ave/Railroad St	TS	0.782 – C	0.828 – D	0.806 – D	0.839 – D	0.024	0.011
9	Chestnut St/Railroad St	TS	0.434 – A	0.454 – A	0.440 – A	0.456 – A	0.006	0.002
10	Azusa Ave/Gale Ave	TS	0.859 – D	0.929 – E	0.866 – D	0.950 – E	0.007	0.021
	– With Mitigation				*0.885 – D*	*0.886 – D*	*0.026*	*-0.043*
	Intersection HCM Methodology	Traffic Control	Existing Without Project Delay Sec[2] – LOS		Existing With Project Delay Sec[2] – LOS		Delay per Vehicle Change (sec)	
			AM	PM	AM	PM	AM	PM
4	Anaheim & Puente Rd/Chestnut St	AWS	10.0 – A	15.6 – C	10.0 – A	15. 7 – C	0	0.1
5	Virgil Waters Way/Chestnut St	AWS	8.1 – A	8.2 – A	8.1 – A	8.2 – A	0	0
8	Curl Ct/Railroad St	CSS	19.7 – C	21.5 – C	21.8 – C	22.7 – C	2.1	1.2
11	Azusa Ave/SR 60 WB Ramps	TS	26.7 – C	21.9 – C	27.9 – C	22.1 – C	1.2	0.2
12	Azusa Ave/SR 60 EB Ramps	TS	20.5 – C	18.8 – B	21.2 – C	19.0 – B	0.7	0.2
	Freeway Segments	Traffic Control	Existing Without Project V/C[1] – LOS		Existing With Project V/C[1] – LOS		V/C Increase	
			AM	PM	AM	PM	AM	PM
13	EB SR 60, east of Hacienda Blvd	—	0.8 – D	0.8 – C	0.8 – D	0.8 – C	0.007	0.002
13	WB SR 60, east of Hacienda Blvd	—	0.8 – C	0.8 – D	0.8 – C	0.8 – D	0.002	0.006
14	EB SR 60, east of Azusa Blvd	—	0.8 – D	0.7 – C	0.8 – D	0.7 – C	0.01	0.003
14	WB SR 60, east of Azusa Blvd	—	0.8 – D	0.8 – D	0.8 – C	0.8 – D	0.04	0.001

Bold = significant impact
TS = traffic signal; AWS = all-way stop; CSS = cross-street stop; EB = eastbound; SB = southbound
[1] Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume capacity ratios and levels of service are shown for intersections controlled by traffic signals.
[2] Analysis Software: Traffix, Version 8.0. Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.





Source: RK Engineering Group, Inc., 2015

Not To Scale

FIGURE 5.6-5

Existing Plus Project Traffic Volumes

Michael Baker INTERNATIONAL

This page intentionally left blank.

Project Buildout (2017) Conditions

To assess project buildout (Year 2017) traffic conditions, existing traffic is combined with other planned development in the vicinity of the project site. The planned development list for the project area was provided by the City of Industry. Although the City's list includes six projects, two were not included as cumulative projects because no development applications were in progress at the time of traffic impact analysis and they have not been approved. Exhibit I, Cumulative Development Location Map, of the traffic impact study (Appendix H to this DEIR) shows the locations of the four planned development projects, and Exhibit J, Cumulative Development Traffic Volumes, of the traffic impact study shows cumulative development peak-hour and daily traffic volumes. Considering the project site's close proximity to La Puente and West Covina, a cumulative developments list was requested from those cities, but no approved or planned developments were identified within a 2-mile radius of the project site. The traffic study area is in the West Covina region of the CMP analysis with the expected growth rate of 8.3 percent from 2015 to 2035, equating to less than half a percent per year. Based on this CMP growth rate, a conservative background traffic growth rate of 1 percent per year, for a total of 2 percent growth, was assumed for project buildout (year 2017) conditions.

Project Buildout (2017) Without Project

Intersection levels of service for the existing network with background growth in the year 2017 are shown below, in Table 5.6-7, Future (2017) Level of Service Without Project, and the traffic volumes are shown in Figure 5.6-6, Project Buildout (Year 2017) Without Project Traffic Volumes.

Table 5.6-7 Future (2017) Level of Service Without Project

ID	Facility	LOS	
		AM	PM
Intersections			
1	Azusa Avenue/Salais Street	D	D
2	Azusa Avenue/Hurley Street	E	E
3	Hurley Street/Valley Boulevard	B	A
4	Anaheim and Puente Road/Chestnut Street	B	C
5	Virgil Waters Way/Chestnut Street	A	A
6	Azusa Avenue/ Anaheim and Puente Road	B	A
7	Azusa Avenue/Railroad Street	D	D
8	Curl Court/Railroad Street	C	C
9	Chestnut Street/Railroad Street	A	A
10	Azusa Avenue/Gale Avenue	D	E
Freeway Ramps			
11	Azusa Avenue/SR 60 Westbound Ramps	C	C
12	Azusa Avenue/SR 60 Eastbound Ramps	C	B
Freeway Segments			
13	Eastbound SR 60, east of Hacienda Blvd	D	C
13	Westbound SR 60, east of Hacienda Blvd	C	D
14	Eastbound SR 60, east of Azusa Blvd	D	C
14	Westbound SR 60, east of Azusa Blvd	D	D

For Project Buildout (Year 2017) Without Project traffic conditions, all study area intersections and segments are projected to operate at acceptable levels of service (LOS D or better) during peak hours, with the exception of the following intersections:

- Azusa Avenue (NS) and Hurley Street (EW): AM, 0.913 (LOS E); PM, 0.914 (LOS E)
- Azusa Avenue (NS) and Gale Avenue (EW): AM, 0.889 (LOS D); PM, 0.959 (LOS E)

Project Buildout (2017) With Project

Intersection levels of service for the existing network with background growth and the proposed project are shown in Table 7 of the traffic impact study (Appendix H to this DEIR) and Figure 5.6-7, Project Buildout (Year 2017) With Project Traffic Volumes. For Project Buildout (Year 2017) With Project traffic conditions, all study area intersections are projected to operate at acceptable levels of service (LOS D or better) during peak hours, with the exception of the following intersections:

- Azusa Avenue (NS) and Hurley Street (EW): AM, 0.923 (LOS E); PM, 0.921 (LOS E)
- Azusa Avenue (NS) and Gale Avenue (EW): AM, 0.896 (LOS D); PM, 0.981 (LOS E)

As shown in Table 5.6-6, Intersection Analysis Summary for Buildout (2017) With and Without Project Conditions, although the signalized Azusa Avenue and Hurley Street intersection would operate at worse than LOS D, the proposed project would not contribute an ICU value of more than 0.020; therefore, the proposed project would not result in a significant impact to this intersection. For the signalized Azusa Avenue and Gale Avenue intersection, which operates at worse than LOS D, the proposed project would contribute an ICU value of more than 0.020, resulting in a significant impact. However, with the following improvements, the level of service would improve to LOS D. The recommended improvements are also illustrated in Figure 5.6-8, Recommended Intersection Improvements.

- Convert westbound through lane to a right turn lane (part of the existing plus project condition improvement).
- Install westbound right turn overlap phase (part of the existing plus project condition improvement).
- Restripe southbound approach to provide a shared through-right lane, three through lanes, and two left turn lanes.
- Due to southbound approach restriping, perform traffic signal modification to remove the southbound right turn overlap phase.
- Restripe southbound Azusa Avenue south of Gale Avenue to accommodate four southbound lanes.

Implementation of the recommended improvements would ensure that the proposed project does not have a significant impact under buildout plus project traffic conditions.

Table 5.6-8 Facility Analysis for Buildout (2017) With and Without Project Conditions

ID	Intersection (ICU Methodology)	Traffic Control	Buildout Without Project V/C[1] – LOS		Buildout With Project V/C[1] – LOS		V/C Change	
			AM	PM	AM	PM	AM	PM
1	Azusa Ave/Salais St	TS	0.867 – D	0.837 – D	0.875 – D	0.843 – D	0.008	0.006
2	Azusa Ave/Hurley St	TS	0.913 – E	0.914 – E	0.923 – E	0.921 – E	0.01	0.007
3	Hurley St/Valley Blvd	TS	0.694 – B	0.581 – A	0.711 – C	0.594 – A	0.017	0.013
6	Azusa Ave/Anaheim & Puente Rd	TS	0.659 – B	0.586 – A	0.680 – B	0.652 – B	0.021	0.066
7	Azusa Ave/Railroad St	TS	0.808 – D	0.857 – D	0.832 – D	0.868 – D	0.024	0.011
9	Chestnut St/Railroad St	TS	0.446 – A	0.46 7– A	0.453 – A	0.469 – A	0.007	0.002
10	Azusa Ave/Gale Ave	TS	0.889 – D	0.959 – E	0.896 – D	0.981 – E	0.007	0.022
	-With Mitigation				0.882 – D	0.887 – D	-0.007	-0.072
	Intersection (HCM Methodology)	Traffic Control	Buildout Without Project Delay Sec[2] – LOS		Buildout With Project Delay Sec[2] – LOS		Delay Change	
			AM	PM	AM	PM	AM	PM
4	Anaheim & Puente Rd/Chestnut St	AWS	10.1 – B	16.2 – C	10.1 – B	16.2 – C	0	0
5	Virgil Waters Way/Chestnut St	AWS	8.1 – A	8.2 – A	8.2 – A	8.2 – A	0.1	0
8	Curl Ct/Railroad St	CSS	20.5 – C	22.6 – C	22.8 – C	23.9 – C	2.3	1.3
11	Azusa Ave/SR 60 WB Ramps	TS	30.1 – C	22.7– C	31.9 – C	22.9 – C	1.8	0.2
12	Azusa Ave/SR 60 EB Ramps	TS	20.9 – C	19.4 – B	21.7 – C	19.5 – B	0.8	0.1
	Freeway Segments	Traffic Control	Buildout Without Project V/C[1] – LOS		Buildout With Project V/C[1] – LOS		V/C Change	
			AM	PM	AM	PM	AM	PM
13	EB SR 60, east of Hacienda Blvd	—	0.8 – D	0.8 – C	0.8 – D	0.8 – C	0.007	0.002
13	WB SR 60, east of Hacienda Blvd	—	0.8 – C	0.8 – C	0.8 – C	0.8 – D	0.001	0.007
14	EB SR 60, east of Azusa Blvd	—	0.8 – D	0.7 – C	0.8 – D	0.7 – C	0.001	0.003
14	WB SR 60, east of Azusa Blvd	—	0.8 – D	0.8 – D	0.8 – D	0.8 – D	0.003	0.001

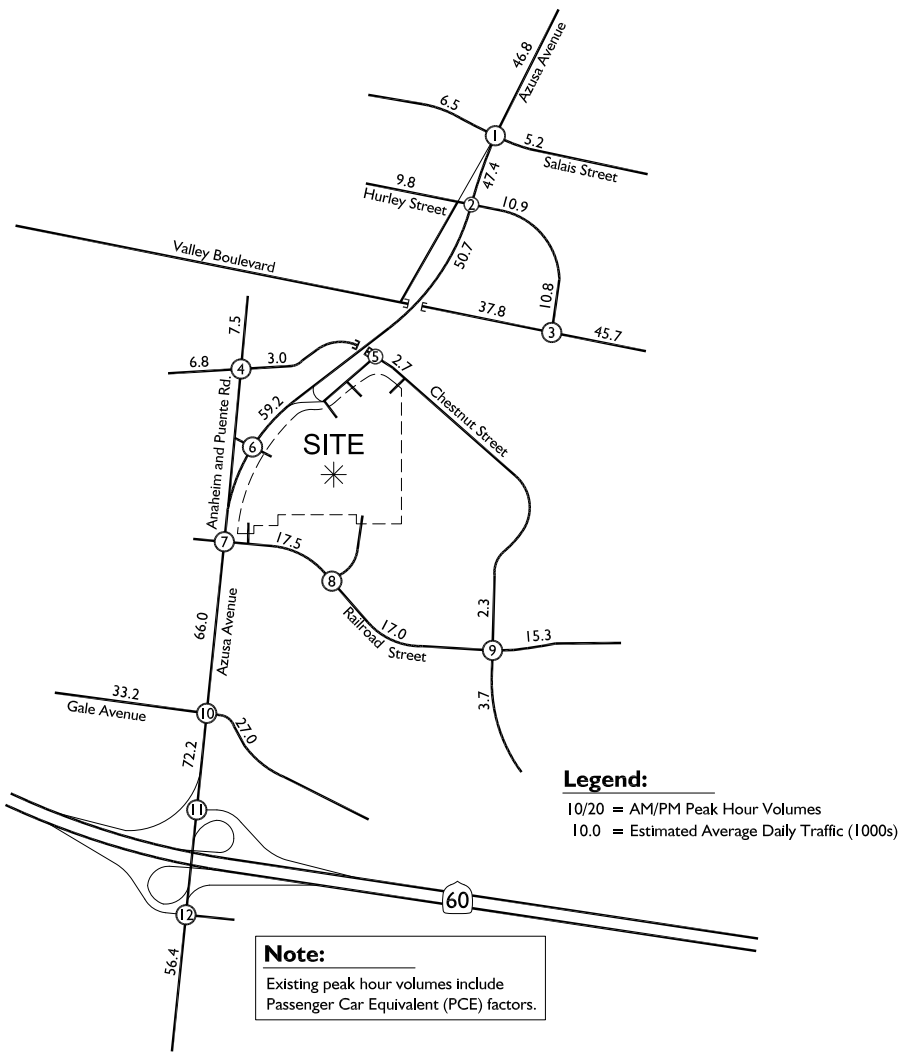
Bold = significant impact

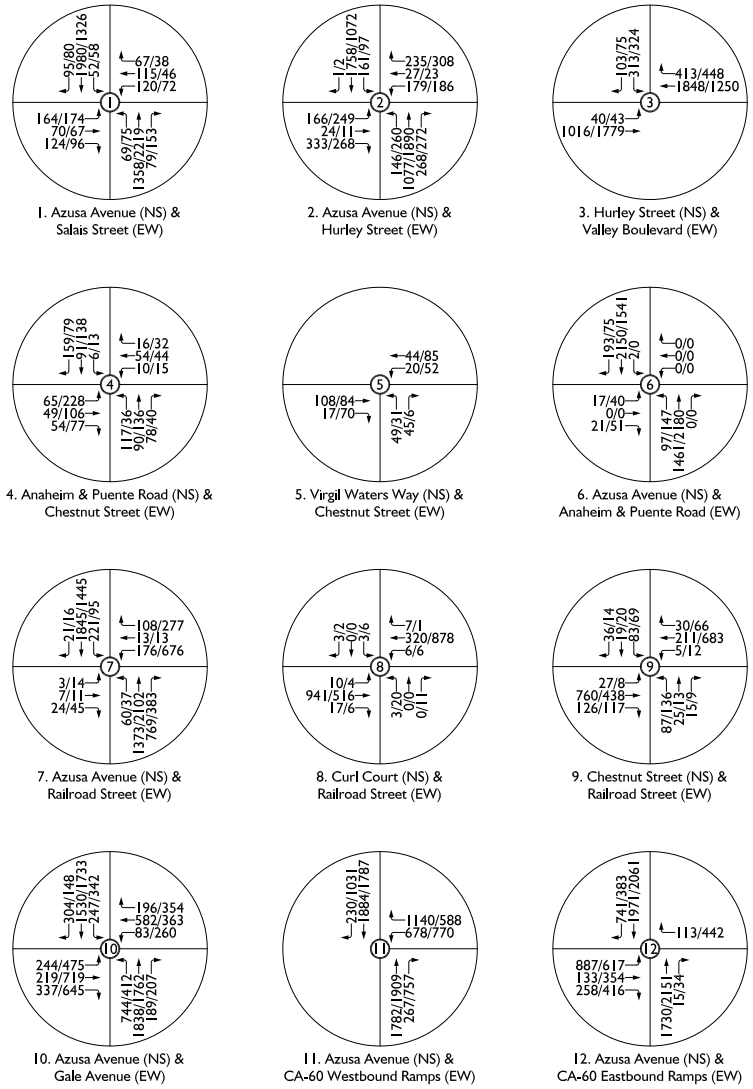
TS = traffic signal; AWS = all-way stop; CSS = cross-street stop; EB = eastbound; WB = westbound

[1] Analysis Software: Traffix, Version 8.0. Per the Intersection Capacity Utilization methodology, overall volume capacity ratios and levels of service are shown for intersections controlled by traffic signals.

[2] Analysis Software: Traffix, Version 8.0. Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

This page intentionally left blank.





Source: RK Engineering Group, Inc., 2015

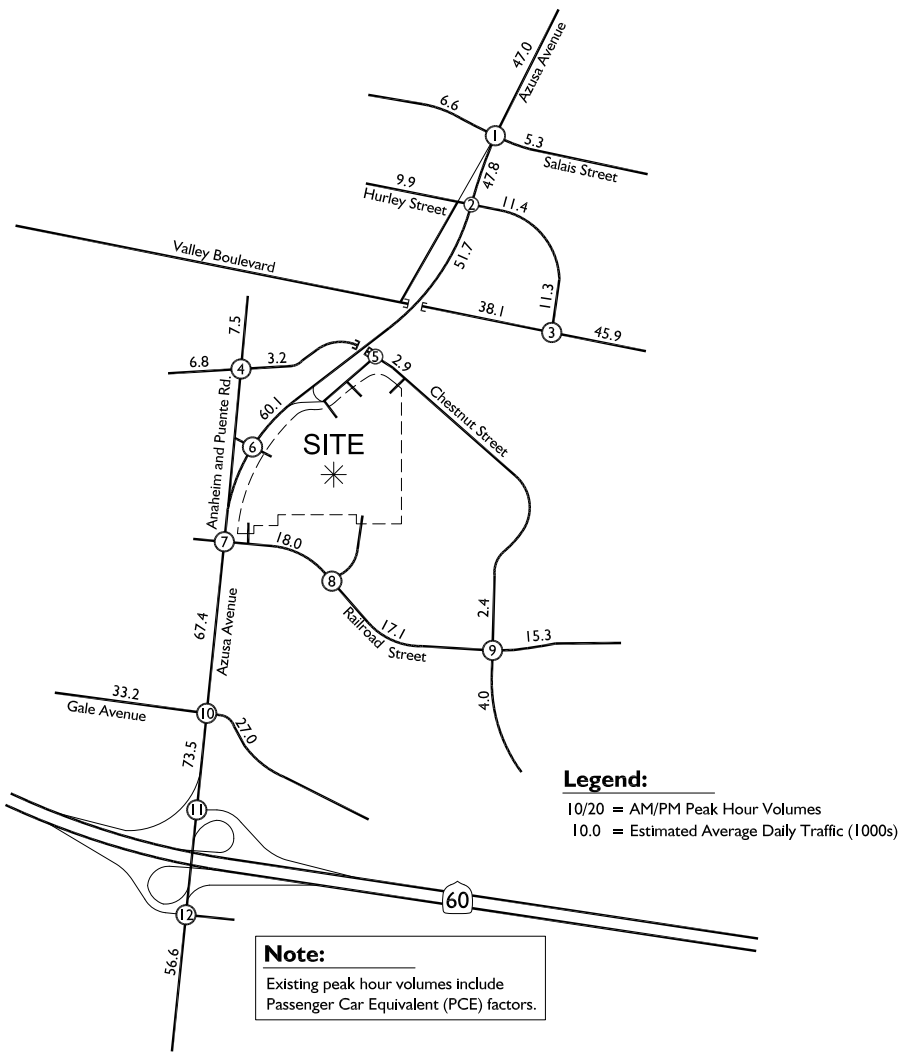
Not To Scale

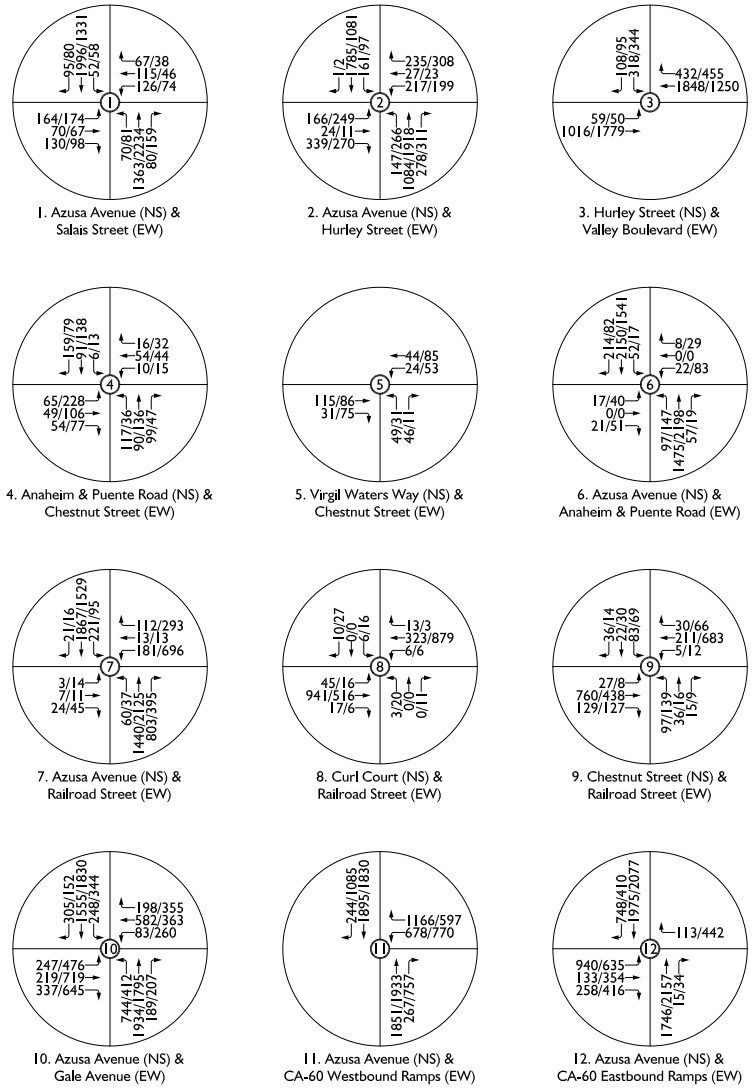
FIGURE 5.6-6

Project Buildout (Year 2017) Without Project Traffic Volumes

Michael Baker INTERNATIONAL

This page intentionally left blank.





Source: RK Engineering Group, Inc., 2015

Not To Scale

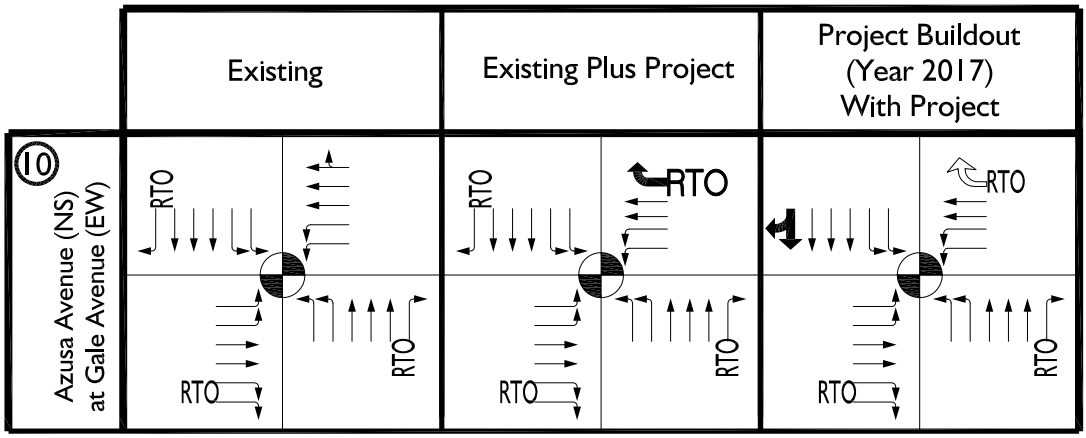
FIGURE 5.6-7

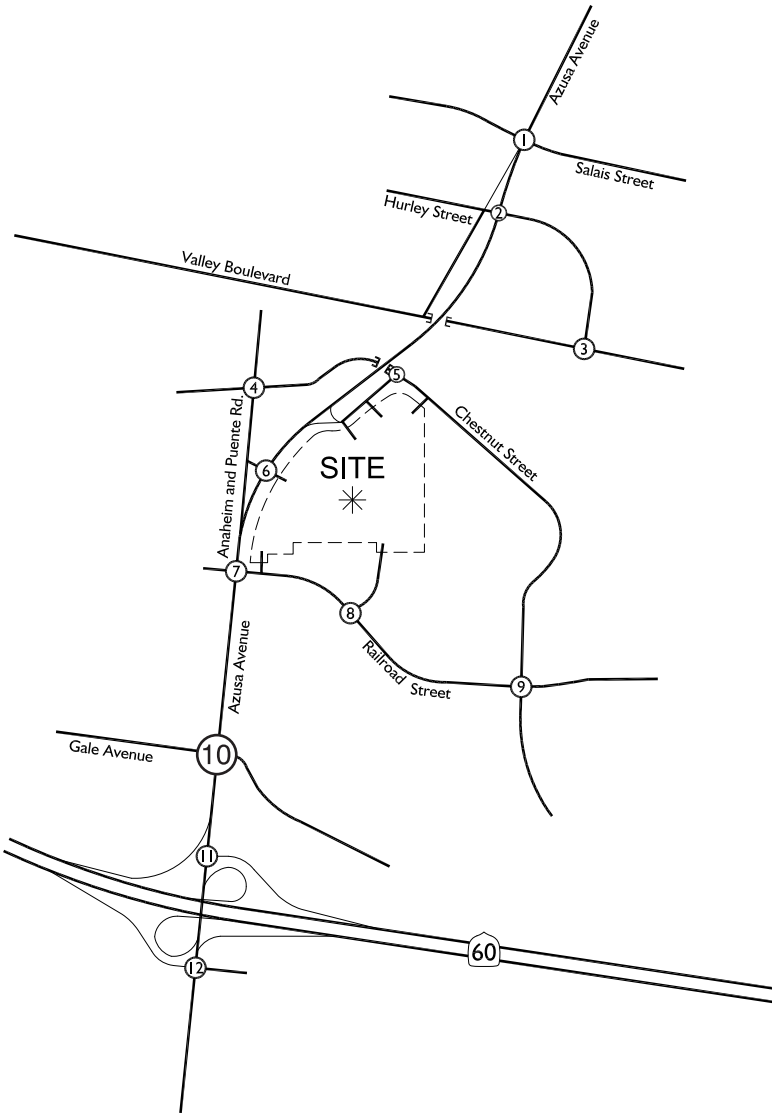
Project Buildout (Year 2017) With Project Traffic Volumes

Michael Baker INTERNATIONAL

This page intentionally left blank.

T:_CS\Work\Industry, City of\Chestnut EIR\Figures





Legend:

- (1) = Study Area Intersection
- = Traffic Signal
- = Recommended Improvement
- = Previous Improvement

Source: RK Engineering Group, Inc. , 2015

Not To Scale

FIGURE 5.6-8
Recommended Intersection Improvements

Michael Baker
INTERNATIONAL

This page intentionally left blank.

Queuing Analysis

For the existing and project buildout/opening year 2017 conditions, a 95th percentile queue per lane analysis using Traffix software determined that adequate vehicular queue storage is provided for the southbound left turn movement at Azusa Avenue at Anaheim and Puente Road. The southbound lane provides 200 feet of vehicle storage distance, which is adequate to accommodate the maximum vehicular queue length of 100 feet projected to occur during the AM peak hour with project implementation.

Additionally, a supplemental traffic study analyzed queuing at freeway study intersections and truck gates utilizing the HCM 95th percentile methodology with the following results:

- **Freeway Intersections Queuing Analysis**
  Adequate vehicular storage capacity is forecast to continue to be provided for all approaches of the freeway study intersections for Project Buildout Year (2017) Without Project Conditions with the exception of the southbound Azusa Avenue through movement at the Azusa Avenue/SR 60 Westbound Off-Ramp intersection during the AM and PM peak hours. Based on the results of the analysis, vehicles are forecast to queue north toward Gale Avenue during the AM and PM peak hours and the deficiency is not forecast to block any state highway study facilities. The proposed project's contribution to this queue deficiency is forecast to be minimal for Project Buildout Year (2017) With Project Conditions. Detailed HCM queuing calculations sheets are contained in Appendix C of the supplemental traffic study (RK Engineering 2016).

- **Freeway Study Facilities**
  Based on the results of the analysis, the proposed project is forecast to not result in significant traffic impacts to freeway study facilities. Hence, the project would not be responsible for any additional improvements beyond what has already been determined in the 2015 traffic study.

- **Truck Gate Queuing at the Project Site**
  The analysis utilized the Robert W. Crommelin, PE, procedures for determining the potential queuing at the project gate. A summary of this procedure is included in Appendix D of the supplemental traffic study. Metrics such as minimum gate capacity (in vehicles per hour), seconds to open the gate and truck to drive through were used as part of the queuing analysis. Results indicate that the estimated queue behind the truck being served would be approximately one vehicle. Therefore, the total queue at the gate would be a maximum of two vehicles, which would not be exceeded 95 percent of the time.

  Under typical operations, the gates would be open; therefore, queuing should not occur unless the gates are closed due to unusual circumstances, and need to be opened. Based on the site plan, there is approximately more than 220 feet of queuing space from the gate to the curb line on Azusa Avenue. This space could theoretically queue over three large trucks at any one time. In conclusion, it is anticipated that there will not be any significant queuing as a result of truck utilizing the Azusa Avenue at the Public Street gate.

No significant queuing impact is anticipated to occur as a result of the project.

Impact 5.6-2: The proposed project would not conflict with the Los Angeles County Congestion Management Program. [Threshold T-2]

Impact Analysis: The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. The CMP system comprises a specific system of arterial roadways plus all freeways. A total of 164 intersections are identified for monitoring on the system in Los Angeles County. Per the CMP transportation impact analysis (TIA) guidelines, a significant impact may result and a traffic impact analysis is required under these conditions:

- At CMP arterial monitoring intersections where the proposed project would add 50 or more vehicle trips during either morning or evening weekday peak hours
- At CMP main-line freeway monitoring locations where the proposed project would add 150 or more vehicle trips, in either direction, during either morning or evening weekday peak hours

The proposed project is in close proximity to the CMP arterial highway of Azusa Avenue and the State Route (SR) 60 freeway. The proposed project would add 50 or more AM and PM peak-hour vehicle trips to the Azusa Avenue and SR 60 freeway intersections. The addition of 150 or more trips to a CMP freeway facility would trigger a CMP main-line segment analysis. An analysis of the SR 60 freeway segments was performed utilizing parameters and procedures consistent with the analysis procedures utilized in the City of Industry General Plan EIR Traffic Study for analysis of freeway mainline segment peak-hour level of service. The analysis utilized the existing freeway traffic volumes based on the latest Performance Measurement System (PEMS) traffic counts published by Caltrans. Results show that study freeway segments are currently operating at LOS D or better during both peak hours and are forecast to continue to operate at LOS D or better for all the analysis scenarios evaluated. Additionally, the project-related increase of the V/C ratio is forecast to be minimal and impacts would not be significant.

5.6.4 Cumulative Impacts

Impact 5.6-1 addressed project impacts within a cumulative context under the project buildout (Year 2017) scenario. For the cumulative impacts, the existing traffic was combined with other planned development traffic volumes in the vicinity of the project site, and a 2 percent growth rate was added. As has been described, the development at the project site is expected to result in a potentially significant cumulative impact at one intersection, but the impact would be reduced to a less than significant level with the recommended mitigation measure. Therefore, provided that adequate mitigation is implemented, cumulative traffic impacts would not be significant.

5.6.5 Existing Regulations and Standard Conditions

The following measures are project design features and existing regulations that will be implemented by the project applicant/developer.

Project Design Features

- Design and construct the on-site circulations system per the details shown in Figure 5.6-2, Proposed Onsite Circulation System, providing the following access points to the project site by passenger vehicles and heavy trucks:
  - Two full access points to Virgil Waters Way
  - One full access point to Chestnut Street
  - One signalized full access point to Azusa Avenue
  - One right-in/right-out only access point to Railroad Street
  - One full access point to Railroad Street (from Curl Court)
- Design and construct the on-site circulation street to have only one lane in each direction.
- Design and construct sight distance at the project access points per City of Industry standards.
- As is the case for any roadway design, the City of Industry should periodically review traffic operations in the vicinity of the project site once the project is completed to ensure that the traffic operations are satisfactory.
- Complete any remaining half-section street improvements for any roadway adjacent to the project site.
- Participate in any approved transportation or development impact fees programs required by the City of Industry.

5.6.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.6-2 would be less than significant.

Without mitigation, the following impacts would be potentially significant:

Impact 5.6-1 Project-related trip generation would impact levels of services for the existing area roadway system.

5.6.7 Mitigation Measures

Impact 5.6-1

TRANS-1 Prior to the issuance of the first building permit, the project applicant/developer shall participate in the costs for traffic improvements to the intersection of Azusa Avenue and Gale Avenue to meet the City of Industry level of service standards. The project applicant/developer shall be conditioned to contribute a "fair share" of total costs for the roadway improvements identified below. The project's fair share calculation has been prepared and is included in Table 11, Project Fair-Share Intersection Contribution, of the traffic impact study prepared by RK Engineering Group dated August 2015 (Appendix H of this DEIR) for informational purposes. The final fair share percentage and payment amount shall be determined and approved by the City of Industry.

- Convert westbound through lane to a right turn lane.
- Install westbound right turn overlap phase.
- Restripe southbound approach to provide a shared through-right, three through lanes, and two left turn lanes.
- Due to southbound approach restriping, perform traffic signal modification to remove the southbound right turn overlap phase.
- Restripe southbound Azusa Avenue south of Gale Avenue to accommodate four southbound lanes.

5.6.8 Level of Significance After Mitigation

The mitigation measure identified above would reduce potential impacts associated with transportation and traffic to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to traffic remain.

5.6.9 References

Industry, City of. 2014. General Plan. Adopted June 12, 2014.

Los Angeles County Metropolitan Transportation Authority. 2010. 2010 Congestion Management Program. http://media.metro.net/projects_studies/cmp/images/CMP_Final_2010.pdf.

RK Engineering Group, Inc. 2015. CT Industry Center Traffic Impact Study, City of Industry, California.

———. 2016. CT Industry Center Supplemental Traffic Impact Study, City of Industry, California.

SANBAG (San Bernardino Associated Governments). 2005. Congestion Management Program for San Bernardino County, Appendix C. Accessed May 25, 2016. http://www.sanbag.ca.gov/planning2/cmp/cmp_app-c_02-09.pdf.

6 Significant Unavoidable Adverse Impacts

6. Significant Unavoidable Adverse Impacts

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. In addition, Section 15093(a) of the CEQA Guidelines allows the decision-making agency to determine whether the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The City can approve a project with unavoidable adverse impacts if it prepares a Statement of Overriding Considerations setting forth the specific reasons for making such a judgment.

At the end of Chapter 1, Executive Summary, is a table summarizing the impacts, mitigation measures, and levels of significance before and after mitigation. Mitigation measures would reduce the level of impact, but the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

- Air Quality
- Greenhouse Gas Emissions

6.1 AIR QUALITY

Impact 5.1-1

Impact 5.1-1: The proposed project would generate a substantial increase in emissions and could be inconsistent with the applicable air quality management plan.

Mitigation Measures AQ-2 through AQ-6 applied for Impact 5.1-1 would reduce the proposed project's regional operational phase criteria air pollutant emissions to the extent feasible. However, given the potential increase in truck trips and associated increase in criteria air pollutant emissions, the proposed project would continue to be potentially inconsistent with the assumptions in the air quality management plan. Therefore, Impact 5.1-1 would remain significant and unavoidable.

Impact 5.1-3

Impact 5.1-3: Long-term criteria air pollutant emissions associated with the proposed project would exceed the South Coast Air Quality Management District's regional operational significance threshold for NO_x.

As shown in Table 5.1-15, Maximum Daily Operational Phase Regional Emissions – Mitigated, implementation of mitigation measure AQ-2 would reduce operational-related NOX emissions; however NOx emissions would continue to exceed South Coast Air Quality Management District's (SCAQMD) regional significance threshold for NOx. Mitigation Measure AQ-2 requires that the forklifts operating at the warehouse buildings be powered by electricity or alternative fuels instead of diesel fuel. Mitigation Measures AQ-3 through AQ-6 would reduce project-related emissions to the extent feasible. However, these measures would not substantially reduce project-related mobile source criteria air pollutant emissions. Mobile source

emissions are regulated by state and federal emissions and fuel use standards and are outside of the control of the applicant, subsequent tenants, and the City of Industry. No additional mitigation measures that are feasible for the project developer/applicant to implement and the City of Industry to enforce and that have a proportional nexus to the project's impact are available to substantially reduce the project's mobile source criteria air pollutant emissions. The proposed project's NOx emissions would continue to exceed the SCAQMD's regional construction significance threshold, and project and cumulative impacts would be significant and unavoidable.

6.2 GREENHOUSE GAS EMISSIONS

Impact 5.3-1

Impact 5.3-1: Development of the proposed project would result in a substantial increase of GHG emissions that would exceed the South Coast Air Quality Management District's significance criteria.

As shown in Table 5.3-5, Project-Related GHG Emissions – Mitigated, implementation of Mitigation Measures GHG-1 and GHG-2 and AQ-2 through AQ-6 would reduce project-related GHG emissions to the extent feasible. However, these measures would not substantially reduce project-related mobile source GHG emissions (which comprise approximately 80 percent of the project's total GHG emissions). Mobile source emissions are regulated by state and federal emissions and fuel use standards and are outside of the control of the applicant, subsequent tenants, and the City of Industry. No additional mitigation measures that are feasible for the project developer/applicant to implement and the City of Industry to enforce and that have a proportional nexus to the project's impact are available to substantially reduce the project's mobile source GHG emissions. Therefore, project-related GHG emissions would continue to exceed the SCAQMD's bright-line and efficiency threshold, and impacts would be significant and unavoidable.

7 ALTERNATIVES TO THE PROPOSED PROJECT

7. Alternatives to the Proposed Project

7.1 INTRODUCTION

7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- [T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (15126.6[b]).
- The specific alternative of 'no project' shall also be evaluated along with its impact (15126.6[e][1]).
- The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time the environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (15126.6[e][2]).
- The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project… (15126.6[f]).
- Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent) (15126.6[f][1]).
- For alternative locations, …only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (15126.6[f][2][A]).
- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (15126.6[f][3]).

For each development alternative, this analysis:

- Describes the alternative;
- Analyzes the impact of the alternative as compared to the proposed project;
- Identifies the impacts of the project that would be avoided or lessened by the alternative; and
- Assesses whether the alternative would meet most of the basic project objectives.

Per CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

7.1.2 Project Objectives

As described in Section 3.2, the following objectives have been established for the proposed project and will aid decision-makers in their review of the project, the project alternatives, and associated environmental impacts:

- Provide for development of the site consistent with the City's General Plan, in particular with these objectives:
    - Achieve a sustained economic viability that provides a tax base supportive of the city's growth potential, maintains fiscal viability, and funds capital improvement programs that serve present and future businesses.
    - Achieve a professional appearance in the city such that additional investment is stimulated by providing a quality level of services, safety, security, infrastructure, and design.
    - Provide prudent ownership and timely disposition of strategic properties to achieve the City's economic development and revitalization goals.

7.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

The following is a discussion of the land use alternatives considered during the scoping and planning process and the reasons they were not selected for detailed analysis in this Draft EIR.

7.2.1 Alternative Development Areas

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by developing the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines Section 15126[5][B][1]). The 28.9-acre project site is owned by the Successor Agency to the Industry Urban Development Agency, and there is no other large vacant land in the City of Industry that is owned by the Successor Agency and has no pending development plan. Other development areas in the City of Industry

have already been developed with above-grade structures and would generally require demolition prior to building development, which would result in additional adverse environmental effects. Moreover, any development of the size and type proposed by the project would have substantially the same impacts on air quality, noise, public services, transportation and traffic, and utilities and service systems, even where no demolition is required. Therefore, no alternative site was selected for further analysis.

7.2.2 Stormwater Infiltration

Development of the proposed project site as a stormwater infiltration site was considered but rejected from evaluation because it would not meet the basic project objectives of achieving sustained economic vitality that provides a tax base supportive of the city's growth potential, maintains fiscal viability, and funds capital improvement programs that serve present and future businesses. This alternative envisions the proposed project site being used as a municipal stormwater infiltration site. The site is currently undeveloped and comprises permeable surfaces, with the exception of minor roadway base and cement paved areas. Therefore, the project site would be able to support the development of a stormwater infiltration basin. Under this alternative, the City's Engineering Department would assume control of the project site and develop a stormwater detention basin that would capture stormwater from the surrounding area and retain the stormwater until it has filtered and then ultimately discharged into the Puente Subbasin of the San Gabriel Groundwater Basin. This alternative would include extensive site grading and excavation for the basin, as well as off-site improvements to ensure that stormwater would flow to the project site from the surrounding area. The basin would be an open facility with grass or sand bases. It would either drain rapidly or act as permanent ponds where water levels rise and fall with stormwater flows. The facility would be designed to handle all runoff from a typical storm, with overflow reentering the City's storm drain system. The proposed alternative would be environmentally superior to the proposed project, as there would be no operational emissions of criteria pollutants or greenhouse gases; however, the development of a stormwater infiltration basin would not achieve the most basic project objectives for the City of Industry. This alternative would not provide for prudent ownership of the Successor Agency's property, nor would it achieve the City's economic and revitalization goals set forth in Section 7.1.2. Therefore, this alternative was not selected for further analysis.

7.2.3 Public Park

The use of the site as a public park was considered but rejected from evaluation because it would not meet the basic project objectives of achieving sustained economic vitality that provides a tax base supportive of the city's growth potential, maintains fiscal viability, and funds capital improvement programs that serve present and future businesses. The proposed alternative would be environmentally superior to the proposed project, as there would be no operational emissions of criteria pollutants or greenhouse gases; however, the project site's General Plan land use designation is Employment, and as such, development of a public park would not be compatible with the designated land use. This alternative would not provide for development of the site that would achieve sustained economic viability to support the city's growth potential, nor would it achieve the City's economic and revitalization goals set forth in Section 7.1.2.

7.2.4 Storage Container Facility

Development of the project site as storage container facility was considered and rejected from evaluation because it would not meet the basic project objectives of achieving sustained economic vitality that provides a tax base supportive of the city's growth potential, maintains fiscal viability, and funds capital improvement

programs that serve present and future businesses. Additionally, the use of the project site for a storage container facility would involve daily heavy-duty truck trips that would result in emissions of criteria pollutants and greenhouse gas emissions, although to a lesser extent than the proposed project. Use of the project site as a storage container facility would not provide for the high quality development envisioned by the proposed project and would not achieve the professional appearance for the site that the City desires. This alternative would not provide for development of the site that would achieve sustained economic viability to support the city's growth potential, nor would it achieve the City's economic and revitalization goals set forth in Section 7.1.2. Therefore, this alternative was not selected for further analysis.

7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following two alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the project but which may avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in the following sections.

- No Project Alternative
- Reduced Intensity Alternative

An EIR must identify an "environmentally superior" alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. However, those impacts found significant and unavoidable are primarily used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving air quality and greenhouse gas (GHG) emissions were found to be significant and unavoidable. Section 7.6 identifies the environmentally superior alternative.

7.3.1 Alternatives Comparison

The proposed project is analyzed in detail in Chapter 5 of this DEIR. Table 7-1, Summary of Development Alternatives, summarizes each project alternative analyzed in this chapter. The 20 percent reduction applied for the Reduced Density Alternative was selected as a means of reducing the significant and unavoidable air quality and greenhouse gas emissions impacts associated with the proposed project while still meeting the City's objectives as set forth in Section 7.1.2. Additionally, the applicant determined that an overall site reduction of 20 percent would allow for the high quality development that is contemplated under the proposed project while maintaining a sufficient return on investment.

Table 7-1 Summary of Development Alternatives

Alternative	Description	Basis for Selection and Summary of Analysis
Proposed Project		
Proposed Warehouse Buildings Project	• Subdivide the 28.9-acre site owned by the Successor Agency to the Industry Urban Development Agency into five parcels. • Develop each parcel with a concrete tilt-up warehouse/office building. • Future combined development total of 509,697 square feet warehouse space and 104,900 square feet office space.	n/a
Project Alternatives		
No Project/No Development Alternative	• The project site would remain undeveloped and vacant.	• Required by CEQA. • Reduces significant and unavoidable impacts to air quality and GHG emissions. • Avoids impacts to cultural resources, hazardous emissions, noise, and traffic. • Does not meet the project objectives.
Reduced Density Alternative	• Reduce the overall development density by 20 percent. • Develop approximately 407,758 square feet of warehouse building space. • Develop approximately 86,320 square feet of office space.	• Would reduce air quality, GHG emissions, hazardous emissions, hydrology and water quality, noise, public services, traffic, and utility and service systems impacts. • Does not avoid significant environmental impacts. • Meets some of the project objectives but not to the degree of the proposed project.

7.4 NO PROJECT/NO DEVELOPMENT ALTERNATIVE

This alternative, which is required by CEQA, assumes that development does not occur and the project site remains vacant. The impacts of the No Project/No Development Alternative as compared to the proposed project are discussed below.

7.4.1 Aesthetics

Under this alternative, no changes to the existing visual character of the project site would occur. The project site is currently vacant and no above-grade structure improvements exist. The project site has been graded, with patches of pavement and small dirt piles and debris. No unique or aesthetically pleasing features exist on-site, and there is no nighttime lighting. Under this alternative, no significant aesthetic impacts are anticipated. It should be noted that vacant sites without regular maintenance and surveillance are an easy target for littering and unauthorized uses, which could result in negative aesthetic impacts. Although the proposed project would result in additional sources of light and glare, such lighting impacts are not necessarily adverse. Therefore, as with the proposed project, this alternative would have less than significant overall aesthetic impacts. It is environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.2 Agriculture and Forestry Resources

The project site has a history of agricultural uses but such uses have been eliminated. The project site is zoned Industrial (I) and Commercial (C), and as with the proposed project, no agricultural and forest resources would be impacted under this alternative. This alternative is environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.3 Air Quality

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. No construction would occur under this alternative; therefore, emissions related to site preparation, grading, and building construction would not occur, and no mitigation would be necessary to reduce impacts to a less than significant level. However, it should be noted that there would be dust impacts from exposed soils under this alternative. The operational phase of the proposed project is projected to generate emissions related to vehicle trips, warehouse-related power equipment such as forklifts, idling trucks, and other area and energy sources. With project implementation, the South Coast Air Quality Management District's (SCAQMD) regional operation significance thresholds for volatile organic compounds (VOC), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), and fine inhalable particulate matter ($PM_{2.5}$) would not be exceeded, and the maximum daily operational emissions for nitrogen oxides (NO_X) would be exceeded even with mitigation. Under this alternative, significant and unavoidable impacts related to NO_X emissions from daily operation would be eliminated; therefore, this alternative would not be inconsistent with an air quality management plan (AQMP). This alternative is environmentally superior to the proposed project in regard to air quality. This is a significant and unavoidable impact of the proposed project.

7.4.4 Biological Impacts

The project site does not contain any special biological resources, and no biological impacts are anticipated under this alternative. This alternative is environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.5 Cultural Resources

Under this alternative, no ground disturbance would occur; therefore, the potential discovery of subsurface archaeological or paleontological resources during grading activities would be eliminated. No mitigation measures are necessary to reduce impacts. This alternative is environmentally superior to the proposed project. However, this is not a significant and unavoidable impact of the proposed project.

7.4.6 Greenhouse Gas Emissions

This alternative would not generate the potentially significant GHG emissions from mobile sources, which comprise approximately 80 percent of the proposed project's GHG emissions. As discussed in Impact 5.3-1, the total project-related GHG emissions are 9,960 metric tons of carbon dioxide equivalent ($MTCO_2e$), exceeding the SCAQMD's threshold of 3,000 $MTCO_2e$. This alternative is environmentally superior to the proposed project. This is a significant and unavoidable impact of the proposed project.

7.4.7 Hazards and Hazardous Materials

The project site was previously used for manufacturing and other uses involving hazardous materials; therefore, a cleanup action would be performed prior to development. Under this alternative, no further investigation would be performed and no remediation work would occur. Under this alternative, no hazardous emissions associated with operational activities such as diesel trucks and off-road equipment emissions would occur. Therefore, the potential carcinogenic health risk would be eliminated. This alternative is considered neutral compared to the proposed project because existing site contamination would not be remediated, but the health risk related to operational emissions would be eliminated. This is not a significant and unavoidable impact of the proposed project.

7.4.8 Hydrology and Water Quality

The project site is currently graded and soils exposed. The majority of project site is pervious with small patches of impervious pavement. Under this alternative, the stormwater runoff would continue to flow naturally, susceptible to soil erosion. This alternative would not provide proper stormwater management facilities, and no best management practices would be implemented. Although the proposed project would increase the impervious surface, adequate stormwater management practices would be implemented to ensure impacts to water quality and hydrology are reduced to a less than significant level. Therefore, this alternative would be environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.9 Land Use and Relevant Planning

The existing zoning for the project site is Industrial (I), except for the southwest parcel at the corner of Azusa Avenue and Railroad Street, which is zoned Commercial (C). The General Plan land use designation is Employment. The proposed development of the site with industrial warehouse/office buildings is consistent with the underlying General Plan land use designations and zoning. The City's General Plan anticipated development of the project site, and leaving the site vacant would not be consistent with the existing General Plan policies to develop the site and create various businesses and employment uses. This alternative is environmentally inferior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.10 Noise

Under this alternative, increased noise and vibration impacts associated with the proposed project would not occur. There would be no heavy construction equipment to be used near sensitive receptors or additional vehicle trips near area roadways segments. This alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.11 Population and Housing

The project site is currently vacant. This alternative would not create additional population or housing needs in the area. The proposed project would create additional temporary construction employment and long-term operational employment opportunities, which would induce population growth in the area. However, the City of Industry is located in the greater Los Angeles metropolitan area, and it is expected that the project would absorb workers from the regional labor force and would not attract workers into the region. The unemployment

rate was 5.7 percent in Los Angeles County in November 2015 and 4.2 percent in Orange County. The project site is also readily served by existing utility systems and roadway infrastructure. Under this project, no additional employment opportunities would be created to induce population or housing growth in the area. This alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.12 Public Services

Under this alternative, no additional public services, such as police, fire, school, or library, would be necessary. This alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.13 Transportation and Traffic

Under this alternative, the 2,867 passenger car equivalent (PCE) trips projected by the proposed warehouse buildings at buildout would not be generated, and the current traffic condition at the Azusa Avenue and Gale Avenue intersection would not be exacerbated. However, it should also be noted that the Azusa Avenue and Gale Avenue intersection would operate at an unacceptable level even without the proposed project, and with implementation of the mitigation measure, the proposed project would improve future traffic conditions at this intersection. Although the mitigation measure under the proposed project would improve the traffic condition at one intersection, the overall increase in traffic volumes would exacerbate conditions at other study area intersections. Therefore, this alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.14 Utilities and Service Systems

Under this alternative, no additional utilities and service systems such as water, wastewater, solid waste, and energy demands would occur and this alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.4.15 Conclusion

Avoid or Substantially Lessen Project Impacts

This alternative would avoid significant and unavoidable impacts related to air quality and GHG emissions. Impacts related to cultural resources, hazardous emissions, noise, population and housing, public services, transportation and traffic, and utilities and service systems would be less than the proposed project, and impacts related to land use would be greater than the proposed project. This alternative would have environmentally neutral impacts related to aesthetics, agricultural and forest resources, biological resources, site contamination, and hydrology and water quality.

Attainment of Project Objectives

This alternative would not meet any of the project objectives identified in Section 7.2.1.

7.5 REDUCED INTENSITY ALTERNATIVE

This alternative would reduce the overall development density by 20 percent, providing approximately 407,758 square feet of warehouse building space and approximately 86,320 square feet of office space. This alternative would result in the development of five warehouse buildings, with a total of 57 docking bays and 680 parking spaces. Similar to the proposed project, the entire 28.9-acre site would be developed with a combination of warehouse buildings, surface parking, and landscaping. The intent of this alternative is to reduce air quality impacts, which were determined to be significant and unavoidable.

7.5.1 Aesthetics

Under this alternative, the size of the buildings would be reduced by approximately 20 percent, but materials, building heights, and other details of the warehouse buildings would not change. The reduced massing of the buildings would allow additional landscaping opportunities, and the size of the parking lot and loading docks could also be downsized. Similar security lighting would be installed, and a similar amount of glare and light impact is anticipated compared to the proposed project. This alternative is environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.2 Agriculture and Forestry Resources

As with the proposed project, this alternative would use the project site for warehousing and office purposes, consistent with the current zoning of the project site as I (Industrial) and C (Commercial). No impacts to agricultural or forestry resources would occur. This alternative is environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.3 Air Quality

As with the proposed project, this alternative would temporarily increase PM_{10}, $PM_{2.5}$, VOC, NO_X, SO_X, and CO regional emissions in the Southern California Air Basin (SoCAB) from preparation, grading, and construction of the warehouse buildings. Assuming 20 percent reduction in building area, this alternative is projected to result in maximum daily construction emissions of 270 pounds per day (lbs/day) of VOC, 60 lbs/day of NO_X, and 57.6 lbs/day of CO. Therefore, as with the proposed project, the VOC daily maximum threshold of 75 lbs/day would be exceeded, and the mitigation measure identified for the proposed project would be applicable. With mitigation, the VOC emissions would be reduced to a less than significant level.

Under this alternative, the proposed project would also increase the maximum operational emissions for VOC, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$. However, even with a 20 percent reduction, the total maximum emissions for NO_X would be 126.4 lbs/day, exceeding the SCAQMD threshold level of 55 lbs/day, while all other criteria air pollutants would be under the thresholds. With implementation of feasible mitigation measures, the NO_X emissions would likely be reduced to 113.6 lbs/day. Approximately 60 percent reduction is necessary to reduce the operational NO_X impacts to regional threshold level of 55 lbs/day. Therefore, under this alternative, the warehouse buildings project would continue to be inconsistent with the AQMP. The significant and unavoidable air quality impacts could not be avoided. However, this alternative would reduce air quality impacts associated with construction, operations, and health risk compared to the proposed project. This alternative is environmentally superior to the proposed project. This is a significant and unavoidable impact of the proposed project.

7.5.4 Biological Impacts

As with the proposed project, the project site would be fully developed with warehouse and office uses and only ornamental landscaping would be provided. The project site does not contain any special-status biological resources, and no impacts to biological resources would occur. This alternative is environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.5 Cultural Resources

Under this alternative, similar grading and excavation activities would occur as with the proposed project. Considering the culturally sensitive nature of the project site, the potential for archaeological, tribal, and paleontological resources exists, and mitigation measures would be necessary to reduce impacts to a less than significant level. This alternative is environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.6 Greenhouse Gas Emissions

Under this alternative, the potentially significant GHG emissions impacts related to mobile sources would be reduced by approximately 20 percent, from 9,960 $MTCO_2e$ to 7,968 $MTCO_2e$. With mitigation, GHG emissions would be reduced to 7,845 $MTCO_2e$, which exceeds the SCAQMD's threshold of 3,000 $MTCO_2e$. Therefore, this impact would continue to be significant. This alternative is environmentally superior to the proposed project. This is a significant and unavoidable impact of the proposed project.

7.5.7 Hazards and Hazardous Materials

As with the proposed project, additional hazardous materials investigation and cleanup would occur under this alternative. With the 20 percent reduction in building area, the number of truck trips and loading dock activity would be slightly reduced; therefore, hazardous emissions and potential health risk associated with the operation of the warehouse use would be less than for the proposed project. This alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.8 Hydrology and Water Quality

Under this alternative, the construction period would be slightly shortened and the pervious landscape area would be increased due to the reduction in building area. As with the proposed project, the development would be required to adhere to the National Pollutant Discharge Elimination System permit requirements and implement adequate best management practices to ensure proper stormwater drainage facilities are constructed and impacts to water quality are less than significant. Because of the shortened construction period and the opportunity for additional pervious landscaping area, this alternative is considered environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.9 Land Use and Relevant Planning

As with the proposed project, the project site would be developed with warehouse and office uses. However, this alternative would not allow development to achieve development levels projected under the zoning and General Plan. No impact in land use and planning would occur under this alternative. This alternative is

environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.10 Noise

This alternative would reduce the building area by 20 percent, decreasing project-related noise impacts because the amount and duration of construction and the average daily trips would be reduced. However, similar types and number of equipment would be used for site preparation and grading, as the site boundaries and access ways would not change. As with the proposed project, less than significant construction noise impacts are anticipated without any mitigation, and less than significant vibration impacts are anticipated with mitigation under this alternative. This alternative would also reduce the traffic noise along impacted roadway segments, which was calculated at no greater than 0.4 dB for the proposed project. Therefore, the reduced noise level from this alternative would not be perceptible. This alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.11 Population and Housing

Under this alternative, it is likely that the amount of employment created from project site development and the associated growth-inducing impact would be less than with the proposed project. However, such an impact would be negligible considering the size of the greater Los Angeles metropolitan area and available infrastructure surrounding the project site. This alternative is environmentally neutral when compared to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.12 Public Services

Reduction in building area would likely reduce the overall operational capacity and facility-related activity. Therefore, under this alternative, the fire and police services demands generated from project site development would likely be less than with the proposed project. No changes to school and library services are anticipated. This alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.13 Transportation and Traffic

Under this alternative, the 2,867 passenger car equivalent (PCE) trips projected by the proposed warehouse buildings at buildout would be reduced to approximately 2,294 PCE trips. However, it should be noted that the Azusa Avenue and Gale Avenue intersection is already operating at unacceptable level of service (LOS) E and would continue to operate at unacceptable level even without the proposed project. Therefore, with addition of approximately 2,294 PCE in the area roadway system, the warehouse buildings project would require traffic improvements at this impacted intersection. The overall increase in traffic volumes in the traffic study area would be reduced, and this alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.14 Utilities and Service Systems

This alternative would reduce the project's impact on sewer, water, electricity, natural gas, and solid waste by approximately 20 percent. It is anticipated that the majority of planned improvements, such as minimizing stormwater pollutants and limiting peak post-project stormwater runoff, identified under the proposed project

would still be required. No significant impacts related to utilities and service systems have been identified, and no mitigation measures are required. This alternative is environmentally superior to the proposed project. This is not a significant and unavoidable impact of the proposed project.

7.5.15 Conclusion

Avoid or Substantially Lessen Project Impacts

This alternative would have superior environmental impacts related to air quality, GHG emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and utilities and service systems. However, the significant and unavoidable impacts related to air quality and GHG emissions could not be avoided. Impacts related to aesthetics, agricultural and forestry services, biological resources, cultural resources, land use and planning, and population and housing would have similar impacts to the proposed project.

Attainment of Project Objectives

This alternative would meet some of the project objectives identified in Section 7.2.1, but not to the extent of the proposed project.

7.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the environmentally superior alternative and, in cases where the No Project Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. One alternative has been identified as environmentally superior to the proposed project:

- Reduced Intensity Alternative

The Reduced Intensity Alternative has been identified as the environmentally superior alternative. This alternative would lessen impacts associated with air quality, GHG emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and utilities and service systems by approximately 20 percent. The remaining impacts are generally the same as the proposed project. However, the Reduced Intensity Alternative would not be able to reduce significant air quality and GHG emissions to a less than significant level. Additionally, it is anticipated that all mitigation measures identified under the proposed project would also need to be incorporated.

8 Impacts Found Not to Be Significant

8. Impacts Found Not to Be Significant

California Public Resources Code Section 21003(f) states, "…it is the policy of the state that…[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in California Environmental Quality Act (CEQA) Guidelines Section 15126.2(a), which states that "[a]n EIR [environmental impact report] shall identify and focus on the significant environmental effects of the proposed project" and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." The CEQA Guidelines allow use of an initial study to document project effects that are less than significant (Section 15063[a]). Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the Draft EIR.

8.1 ASSESSMENT IN THE INITIAL STUDY

The Initial Study prepared for the proposed project in October 2015 determined that the impacts listed below would be less than significant. Consequently, they have not been further analyzed in this Draft EIR. Please refer to Appendix A for explanation of the basis of these conclusions. Impact categories and questions below are summarized directly from the CEQA Environmental Checklist, as contained in the Initial Study.

Table 8-1 Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
I. AESTHETICS. Would the project:	
a) Have a substantial adverse effect on a scenic vista?	Less Than Significant Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less Than Significant Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact

Table 8-1 Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	
e) Create objectionable odors affecting a substantial number of people?	Less Than Significant Impact
IV. BIOLOGICAL RESOURCES. Would the project:	
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact
V. CULTURAL RESOURCES. Would the project:	
d) Disturb any human remains, including those interred outside of formal cemeteries?	Less Than Significant Impact
VI. GEOLOGY AND SOILS. Would the project:	
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less Than Significant Impact
ii) Strong seismic ground shaking?	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Less Than Significant Impact

Table 8-1 Impacts Found Not to Be Significant

Environmental Issues		Initial Study Determination
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Less Than Significant Impact
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:		
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	No Impact
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	No Impact
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:		
a)	Violate any water quality standards or waste discharge requirements?	Less Than Significant Impact
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Less Than Significant Impact
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site	No Impact
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Less Than Significant Impact
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	Less Than Significant Impact
f)	Otherwise substantially degrade water quality?	Less Than Significant Impact
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	No Impact
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	No Impact
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	No Impact
j)	Inundation by seiche, tsunami, or mudflow?	No Impact
X. LAND USE AND PLANNING. Would the project:		
a)	Physically divide an established community?	No Impact
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

Table 8-1 Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	No Impact
XI. MINERAL RESOURCES. Would the project:	
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact
XII. NOISE. Would the project result in:	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	No Impact
XIII. POPULATION AND HOUSING. Would the project:	
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less Than Significant Impact
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	No Impact
XIV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	
a) Fire protection?	Less Than Significant Impact
b) Police protection?	Less Than Significant Impact
c) Schools?	No Impact
d) Parks?	No Impact
e) Other public facilities?	No Impact
XV. RECREATION.	
a) Would the project 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?	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less Than Significant Impact
e) Result in inadequate emergency access?	No Impact
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	No Impact

Table 8-1 Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:	
a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?	No Impact
b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Less Than Significant Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	Less Than Significant Impact
e) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less Than Significant Impact
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Less Than Significant Impact
g) Comply with federal, state, and local statutes and regulations related to solid waste?	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	Less Than Significant Impact

This page intentionally left blank.

9 Significant Irreversible Changes Due to the Proposed Project

9. Significant Irreversible Changes Due to the Proposed Project

Section 15126.2(c) of the CEQA Guidelines requires an environmental impact report (EIR) to describe any significant irreversible environmental changes that would be caused by implementation of the proposed project.

The project site is currently vacant, and implementation of the proposed project would require additional commitment of nonrenewable and/or slowly renewable energy resources, natural resources, and human resources. Construction materials would be consumed, such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metal, water, etc., and increased commitment of public and utility services, such as police, fire, sewer, water, solid waste, natural gas services, etc., would also be required. These energy and social service commitments would be long-term obligations. Once these commitments are made, it is improbable that the project area would revert to its current condition. However, as discussed in the appropriate sections of the Initial Study (Appendix A to this DEIR) and this DEIR, the project site is in a highly urbanized environmental setting surrounded by similar types of uses. Therefore, impacts to these public services would be minimal, and the existing infrastructure and services would be adequate to serve the proposed project with limited system upgrades and improvements. The project site is near a major roadway system, and the availability of a vacant site would allow the site's development without major demolition or relocation efforts. Nonetheless, the proposed project would result in significant irreversible changes to the environment throughout the life span of the structures.

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the California legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines.

CEQA Guidelines Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project would not result in this type of energy consumption and therefore would not create a significant impact on energy resources.

Energy

Energy generation occurs across the state from many different sources. Tracking the specific source of energy used in any one place can be difficult. Energy that is not generated at a facility by an energy provider can be purchased from other producers and transmitted to the energy user through transmission networks. Energy

sources used in the City of Industry include hydroelectric, waste-to-energy, transformation, geothermal, solar, wind, coal, natural gas, and nuclear.

Electricity

Over the past 15 years, electricity generation in California has undergone a transition. Historically, California has relied heavily on oil- and gas-fired plants to generate electricity. Spurred by regulatory measures and tax incentives, California's electrical system has become more reliant on renewable energy sources, including cogeneration, wind energy, solar energy, geothermal energy, biomass conversion, transformation plants, and small hydroelectric plants. Unlike petroleum production, generation of electricity is usually not tied to the location of the fuel source and can be delivered great distances via the electrical grid. Southern California Edison (SCE) supplies electricity to customers in the City of Industry.

The generating capacity of a unit of electricity is expressed in megawatts (MW). One MW provides enough energy to power 1,000 average California homes per day. Net generation refers to the gross amount of energy produced by a unit, minus the amount of energy the unit consumes. Generation is typically measured in megawatt-hours (MWh), kilowatt-hours (kWh), or gigawatt-hours (GWh).

Natural Gas

Natural gas is a hydrocarbon fuel found in reservoirs beneath the earth's surface and is composed primarily of methane (CH_4). It is used for space and water heating, process heating and electricity generation, and as transportation fuel. Southern California Gas Company (SoCalGas) supplies natural gas in the city.

Use of natural gas is expected to increase in coming years because it is a relatively clean alternative to other fossil fuels like oil and coal. In California and throughout the western United States, many new electrical generation plants that are fired by natural gas are being brought online. Thus, there is great interest in importing liquefied natural gas from other parts of the world. As of 2012, 43 percent of the electricity consumed in California was generated using natural gas (CEC 2013).

While the supply of natural gas in the United States and production in the lower 48 states has increased greatly since 2008, California produces little, and imports 90 percent of its natural gas. Most imports are delivered via interstate pipelines from the Southwest, Rocky Mountains, and Canada (CEC 2013).

Existing Energy Use

As of 2012, California ranked second in the United States in total energy consumption of natural gas, petroleum, and retail electricity sales, following only Texas in each category (EIA 2014). Despite being a large consumer of energy, in particular transportation energy, California's per-capita consumption rate for all these energy sources combined is one of the lowest in the country (49th). This is largely because of California's proactive energy efficiency programs and mild weather, which reduces energy demands for heating and cooling (EIA 2014). Of California's total energy usage, the breakdown by sector is 38.5 percent transportation, 22.8 percent industrial, 19.3 percent commercial, and 19.2 percent residential. Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use (EIA 2015). In 2014, taxable gasoline sales (including aviation gasoline) in California accounted for 14,921,441,859 gallons of gasoline (BOE 2016).

SCE supplies electricity to customers in the City of Industry and throughout all of Los Angeles County. The electricity consumption attributable to nonresidential land uses in Los Angeles County from 2007 to 2014 is shown in Table 9.0-1, Nonresidential Electricity Consumption in Los Angeles County 2007–2014. As indicated, the demand has decreased, even with an increase in population.

Table 9-1 Nonresidential Electricity Consumption in Los Angeles County 2007–2014

Year	Nonresidential Electricity Consumption (in millions of kilowatt hours)
2007	50,747
2008	50,989
2009	49,360
2010	48,529
2011	48,037
2012	48,002
2013	47,792
2014	49,239

Source: ECDMS 2015

SoCalGas supplies natural gas to customers in the City of Industry and throughout all of Los Angeles County. The natural gas consumption attributable to residential and nonresidential land uses in Los Angeles County from 2007 to 2014 is shown in Table 9.0-2, Nonresidential Natural Gas Consumption in Los Angeles County 2007–2014. As shown, the demand has remained relatively constant, with no substantial increase, even as the population has increased.

Table 9-2 Nonresidential Natural Gas Consumption in Los Angeles County 2007–2014

Year	Nonresidential Natural Gas Consumption (in millions of therms)
2007	1,661
2008	1,700
2009	1,656
2010	1,776
2011	1,692
2012	1,712
2013	1,807
2014	1,779

Source: ECDMS 2015

Automotive fuel consumption in Los Angeles County, including the City of Industry, from 2007 to 2015 is shown in Table 9.0-3, Automotive Fuel Consumption in Los Angeles County 2007–2016. As shown, automotive fuel consumption has declined in the county since 2007.

Table 9-3 Automotive Fuel Consumption in Los Angeles County 2007–2016

Year	Automotive Fuel Consumption
2007	4,458,256,000
2008	4,279,471,700
2009	4,261,364,050
2010	4,248,421,150
2011	4,175,899,300
2012	4,084,700,400
2013	4,064,698,400
2014	4,082,017,650
2015	4,086,631,250
2016	4,080,623,350

Source: CARB 2014

This energy consumption analysis focuses on the three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips associated with new development as well as the fuel necessary for project construction.

The analysis of electricity/natural gas usage is based on California Emissions Estimator Model (CalEEMod) air quality and greenhouse gas emissions modeling, which quantifies energy use for occupancy. The results of the CalEEMod modeling are included in Appendix C of this Draft EIR. The amount of operational fuel use was estimated using the California Air Resources Board's EMFAC2014 computer program, which provides projections for typical daily fuel usage in Los Angeles County, coupled with the California Trucking Association's (2015) Vehicle Technologies Market Report. The amount of construction-related fuel use was estimated using ratios provided in the California Climate Registry (2016) General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. The results of EMFAC2014 modeling and construction fuel estimates are included in Appendix I of this EIR.

Energy (Fossil Fuel) Consumption

Energy consumption associated with the proposed project is summarized in Table 9.0-4, Chestnut Street Energy Consumption.

Table 9-4 Chestnut Street Energy Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Electricity Consumption[1]	2,656,780 kilowatt-hours	0.005%
Natural Gas Consumption[1]	3,971 therms	0.00002%
Automotive Fuel Consumption		0.03%
• *Project Construction*[1, 2]	*105,123 gallons*	
• *Project Operations*[3, 4]	*979,160 gallons*	
• Total	1,084,283 gallons	

Sources: [1] CalEEMod 2013.2.2; [2] California Climate Registry 2016; [3] EMFAC2014 (CARB 2014); [4] CTA 2015

Notes: The project increases in electricity and natural gas consumption are compared with all of the nonresidential buildings in Los Angeles County in 2014. The project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2015.

As shown in Table 9.0-4, the increase in electricity usage as a result of the project would constitute an approximate 0.005 percent increase in the typical annual electricity consumption and an approximate 0.00002 percent increase in the typical annual natural gas consumption attributable to all nonresidential buildings in Los Angeles County. The increase in automotive fuel, including the one-time construction of the project, would increase use in the county by 0.03 percent.

The Chestnut Street project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide 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. Furthermore, the electricity provider in the City of Industry, SCE, is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 50 percent of total procurement by 2030. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures projects will not result in the waste of finite energy resources.

SCE currently provides electrical services to the City of Industry, while natural gas is provided by the Southern California Gas Company. These utility companies would continue to provide these services and are required by the California Public Utilities Commission to update existing systems to meet any additional demand.

In terms of automotive fuel consumption, the project would provide a warehousing that involves truck trips associated with the region's goods movement industry. The project supports a coordinated California goods movement system that accommodates growth in the throughput of freight to the region and nation in ways that support the region's economic vitality, attainment of clean air standards, and quality of life for communities.

As shown in Table 9.0-4, the increase in electricity, natural gas, and automotive fuel consumption over existing conditions is minimal (less than 1 percent). For the reasons described above, the proposed project would not place a substantial demand on regional energy supply or require significant additional capacity, or significantly increase peak and base period electricity demand, or cause wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation.

9.1 REFERENCES

BOE (California Board of Equalization). 2016. Net Taxable Gasoline Sales. http://www.boe.ca.gov/sptaxprog/reports/mvf_10_year_report.pdf.

California Climate Registry. 2016. General Reporting Protocol for the Voluntary Reporting Program, Version 2.1.

CARB (California Air Resources Board). 2014. EMFAC2014 Emissions Model.

CEC (California Energy Commission). 2013. California's Major Energy Sources. http://energyalmanac.ca.gov/overview/ energy_sources.html.

CTA (California Trucking Association). 2015. 2015 Vehicle Technologies Market Report.

ECDMS (California Energy Consumption Data Management System). 2015. Electricity and Natural Gas Consumption by County. http://www.ecdms.energy.ca.gov/.

EIA (US Energy Information Administration). 2014. Table C11: Energy Consumption by Source, Ranked by State, 2012. http://www.eia.gov/state/seds/sep_sum/html/pdf/rank_use_source.pdf.

———. 2015. California State Profile and Energy Estimates. Updated April 16, 2015. http://www.eia.gov/state/data.cfm?sid=CA#ConsumptionExpenditures.

USDOE (US Department of Energy, Alternative Fuels Data Center). 2014. *Alternative Fuels Data Center-Fuel Properties Comparison*. http://www.afdc.energy.gov/fuels /fuel_comparison_chart.pdf.

10 Growth-Inducing Impacts of the Proposed Project

10. Growth–Inducing Impacts of the Proposed Project

Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also required is an assessment of other projects that would foster other activities which could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined by analyzing the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?
- Would this project result in the need to expand one or more public services to maintain desired levels of service?
- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?
- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this EIR.

Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

As discussed in the Chapter 4, Environmental Setting, the project site is situated in an urban setting, surrounded by developed land uses and existing infrastructure systems. Additionally, although the project site is currently vacant, some parts of the project site have been previously developed. No major new infrastructure facilities are required to develop this project as proposed. Extensions of existing utility facilities from surrounding roadways will provide a sufficient tie-in to the existing utility systems to accommodate the demands of this project at full buildout.

The proposed project involves the approval of a subdivision map to allow the future development of five warehouse buildings totaling up to 614,597 square feet. The proposed project is allowed under the City of Industry General Plan and Zoning Code and is consistent with the growth projections for the city. Therefore,

the proposed project would not be considered growth inducing with respect to removal of obstacles to growth on the project site.

Would this project result in the need to expand one or more public services to maintain desired levels of service?

The City of Industry contracts with the Los Angeles County Fire Department (LACFD) for fire protection services and with the Los Angeles County Sheriff's Department (LASD) for law enforcement and crime prevention services. Development of the proposed project could result in a slight increase in demands for fire and police protection services. However, as discussed in the Initial Study (see Appendix A), compliance with the required building code standards and with the review and approval process would ensure that the proposed project does not degrade the desired levels of service. The proposed project would have no impact on schools, parks, and library services.

Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

During project construction, a number of construction-related jobs would be created, though it would be a temporary situation, lasting until project construction is completed. This would be a direct, growth-inducing effect of this project. The proposed project could also generate additional employment opportunities in the City of Industry, and some of these people could relocate to surrounding area near the city. These future potential residents could seek shopping, entertainment, and other economic opportunities in the city and the surrounding area. This would represent an increased demand for economic goods and services and could therefore encourage the creation of new businesses and/or the expansion of existing businesses that address these economic needs. However, the project vicinity already contains various commercial areas that could serve the shopping needs of future employees or residents. The proposed project would directly and indirectly encourage and facilitate economic effects that could potentially affect the environment.

Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

As discussed above, the proposed project involves the approval of a subdivision map to allow the future development of up to 614,597 square feet of warehouse and office land uses. The proposed project is consistent with the City of Industry General Plan. No changes to any of the City's building safety standards (i.e., building, grading, plumbing, mechanical, electrical, fire codes) or amendments to General Plan or zoning code are proposed or required to implement this project. Mitigation measures have been identified in the preceding Chapter 5 to ensure that future development on the project site complies with all applicable City plans, policies, ordinances, etc., so that there are no conflicts with adopted land development regulations and so that environmental impacts are minimized.

Pressures to develop other land in the surrounding area may derive from regional economic conditions and market demands for housing, commercial, office, and industrial land uses that are not directly or indirectly influenced by the proposed project. Approval of the proposed project would not therefore involve a precedent-setting action that could be applied to other properties and thereby encourage or facilitate growth that would not otherwise occur.

11 Qualifications of Persons Preparing the EIR

11. Qualifications of Persons Preparing EIR

PLACEWORKS

Dwayne Mears, AICP
Principal, Environmental Services

- BS, City and Regional Planning, California Polytechnic State University, San Luis Obispo
- MRP, City and Regional Planning, University of North Carolina, Chapel Hill

Elizabeth Kim
Associate

- BA, Environmental Analysis and Design, University of California, Irvine
- MURP, University of California, Irvine

Nicole Vermilion
Associate Principal

- BA, Environmental Studies, and BS, Ecology and Evolutionary Biology, University of California, Santa Cruz
- MURP, University of California, Irvine

Bob Mantey
Manager, Noise, Vibration & Acoustics

- BS, Engineering, Harvey Mudd College

Stephanie Chen
Planner, Air Quality/GHG and Transportation

- BS, Environmental Engineering, University of California, San Diego
- MGIST, University of Southern California

Natalie Foley
Planner, Noise

- BS, Physics, Hillsdale College
- BS, Music, Hillsdale College

Michael Watson
Associate Geologist

- BS, Geology, University of California, Riverside

Fernando Sotelo
Senior Planner

- BS, Naval Engineering, University of Sao Paulo, Brazil
- MS, Civil Engineering, University of Southern California

Cary Nakama
Graphic Designer

- BA, Business Administration: Data Processing and Marketing, California State University, Long Beach
- AA, Computer Graphic Design, Platt College of Computer Graphic Design

MICHAEL BAKER INTERNATIONAL

Julian Capata
Project Manager, Environmental Services

- BA, Environmental Studies, Geography, California State University, Northridge

Christine Donoghue
Senior Planner, Environmental Services

- BS, Geology, California State University, San Bernardino

Kari Cano
Project Manager, Environmental Services

- BA, Political Science, California State University, Fullerton
- MA, Political Science, California State University, Fullerton

Renee Gleason
Associate Planner, Environmental Services

- BA, English, California State University, San Bernardino
- Certified Environmental Professional in Training, 2013

Ruben Salas
Associate Planner, Environmental Services

- BS, English Languages and Literatures, California State Polytechnic University, Pomona
- MURP, California State Polytechnic University, Pomona