PANATTONI PROJECT

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

JUNE 2020

PUBLIC REVIEW DRAFT

Prepared for:

City of Carson

Prepared by:

Michael Baker INTERNATIONAL

PUBLIC REVIEW DRAFT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Panattoni Project

Lead Agency:

CITY OF CARSON
701 East Carson Street
Carson, California 90745
Contact: Mr. Max Castillo, Assistant Planner
310.952.1700 ext. 1317

Prepared by:

MICHAEL BAKER INTERNATIONAL
5 Hutton Centre Drive, Suite 500
Santa Ana, California 92707
Contact: Ms. Alicia Gonzalez
949.855.7069

June 2020

JN 176815

This document is designed for double-sided printing to conserve natural resources.

TABLE OF CONTENTS

1.0 Introduction 1-1

1.1 Statutory Authority and Requirements 1-1
1.2 Purpose 1-1
1.3 Consultation 1-2
1.4 Incorporation by Reference 1-2

2.0 Project Description 2-1

2.1 Project Location 2-1
2.2 Environmental Setting 2-1
2.3 Background and History 2-4
2.4 Project Characteristics 2-4
2.5 Phasing/Construction 2-13
2.6 Agreements, Permits, and Approvals 2-13

3.0 Initial Study Checklist 3-1

3.1 Background 3-1
3.2 Environmental Factors Potentially Affected 3-2
3.3 Evaluation of Environmental Impacts 3-2

4.0 Environmental Analysis 4.1-1

4.1 Aesthetics 4.1-1
4.2 Agriculture and Forestry Resources 4.2-1
4.3 Air Quality 4.3-1
4.4 Biological Resources 4.4-1
4.5 Cultural Resources 4.5-1
4.6 Energy 4.6-1
4.7 Geology and Soils 4.7-1
4.8 Greenhouse Gas Emissions 4.8-1
4.9 Hazards and Hazardous Materials 4.9-1
4.10 Hydrology and Water Quality 4.10-1
4.11 Land Use and Planning 4.11-1
4.12 Mineral Resources 4.12-1
4.13 Noise 4.13-1
4.14 Population and Housing 4.14-1
4.15 Public Services 4.15-1
4.16 Recreation 4.16-1
4.17 Transportation 4.17-1
4.18 Tribal Cultural Resources 4.18-1
4.19 Utilities and Service Systems 4.19-1
4.20 Wildfire 4.20-1
4.21 Mandatory Findings of Significance 4.21-1
4.22 References 4.22-1
4.23 Report Preparation Personnel 4.23-1

5.0 Consultant Recommendation 5-1

6.0 Lead Agency Determination 6-1

APPENDICES (provided on CD at the end of the Table of Contents)

A. Air Quality/Greenhouse Gas/Energy Data
B. Geotechnical Investigation
C. Phase I ESA
D. Hydrology and Water Quality Documentation
E. Noise Data
F. Traffic Impact Analysis and VMT Analysis
G. Utility Will Serve Letters

LIST OF EXHIBITS

Exhibit 2-1 Regional Vicinity 2-2
Exhibit 2-2 Site Vicinity 2-3
Exhibit 2-3 Conceptual Site Plan 2-5
Exhibit 2-4a Proposed Elevations – Building A 2-8
Exhibit 2-4b Proposed Elevations – Building B 2-9
Exhibit 2-4c Proposed Elevations – Building C 2-10
Exhibit 2-5 Conceptual Landscape Plan 2-11
Exhibit 4.1-1 Existing Conditions Photographs 4.1-3
Exhibit 4.13-1 Noise Measurement Locations 4.13-6

LIST OF TABLES

Table 2-1 Land Use Comparison Between Development Options 2-6
Table 2-2 Building Areas – Warehouse and Manufacturing Option 2-6
Table 2-3 Building Areas – Warehouse Only Option 2-7
Table 4.1-1 Municipal Code Consistency Analysis Governing Scenic Quality 4.1-2
Table 4.3-1 Construction Emissions 4.3-6
Table 4.3-2 Long-Term Air Emissions (Warehouse Only Option) 4.3-8
Table 4.3-3 Long-Term Air Emissions (Warehouse and Manufacturing Option) 4.3-8
Table 4.3-4 Localized Significance of Emissions 4.3-11
Table 4.3-5 Localized Significance of Operational Emissions 4.3-12
Table 4.6-1 Project and Countywide Energy Consumption 4.6-3
Table 4.6-2 Community-Oriented EECAP Strategies 4.6-5
Table 4.8-1 Estimated Greenhouse Gas Emissions (Warehouse Only Option) 4.8-5
Table 4.8-2 Estimated Greenhouse Gas Emissions (Warehouse and Manufacturing Option) 4.8-6
Table 4.8-3 Project Consistency with 2017 Scoping Plan 4.8-8
Table 4.8-4 Project Consistency with CAP 4.8-12
Table 4.11-1 Project Consistency with Applicable General Plan Land Use Element Policies 4.11-2
Table 4.11-2 Light Manufacturing Zone Development Standards Consistency Analysis 4.11-3
Table 4.13-1 Interior and Exterior Noise Standards 4.13-2
Table 4.13-2 Noise Ordinance Standards 4.13-3

Table 4.13-3 Maximum Construction Noise Limits 4.13-3
Table 4.13-4 Existing Traffic Noise Levels 4.13-4
Table 4.13-5 Noise Measurements 4.13-7
Table 4.17-1 ICU Intersection LOS and V/C Ranges 4.17-3
Table 4.17-2 HCM Intersection LOS and Delay Ranges 4.17-4
Table 4.17-3 City of Carson Thresholds of Significance 4.17-4
Table 4.17-4 Existing Intersection Level of Service 4.17-5
Table 4.17-5 Project Trip Generation (Warehouse and Manufacturing Option) 4.17-6
Table 4.17-6 Project Trip Generation (Warehouse Only Option) 4.17-7
Table 4.17-7 Existing Plus Project Significant Impact Evaluation 4.17-9
Table 4.17-8 Opening Year (2021) Significant Impact Evaluation 4.17-11
Table 4.17-9 State Highway Intersection Level of Service 4.17-13
Table 4.17-10 Freeway Off-Ramp Queuing Analysis 4.17-15
Table 4.17-11 City of Carson Baseline VMT and VMT Impact Thresholds for Home-Based Work VMT 4.17-17
Table 4.17-12 Person Trip Rates for City of Carson 4.17-17
Table 4.17-13 VMT per Employee Calculation 4.17-18
Table 4.17-14 Project Driveway Queueing Analysis 4.17-19
Table 4.19-1 Landfills Serving the City 4.19-4

This page intentionally left blank.

1.0 INTRODUCTION

The Panattoni Project (herein referenced as the "project") is located at 2112 East 223rd Street on an approximately 14.3-acre property (Assessor's Parcel Number [APN] 7315-008-049) in the City of Carson (City), California. The project proposes the construction of three concrete tilt-up light industrial buildings (Buildings "A," "B," and "C") totaling 292,400 square feet and associated surface parking, landscaping, and truck loading docks; refer to Section 2.0, *Project Description*. Following a preliminary review of the proposed project, the City has determined that it is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study addresses the direct, indirect, and cumulative environmental effects of the project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with CEQA (Public Resources Code Section 21000-21177) and pursuant to California Code of Regulations Section 15063, the City of Carson, acting in the capacity of Lead Agency under CEQA, is required to undertake the preparation of an Initial Study to determine if the proposed project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration for that project. Such determination can be made only if "there is no substantial evidence in light of the whole record before the Lead Agency" that such impacts may occur (Public Resources Code Section 21080(c)).

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and/or other discretionary approvals would be required.

The environmental documentation is subject to a public review period. During this review, public agency comments on the document relative to environmental issues should be addressed to the City. Following review of any comments received, the City will consider these comments as a part of the project's environmental review and include them with the Initial Study documentation for consideration by the City.

1.2 PURPOSE

CEQA Guidelines Section 15063 identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- Identification of the environmental setting;
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
- Discussion of ways to mitigate significant effects identified, if any;
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 CONSULTATION

As soon as a Lead Agency (in this case, the City of Carson) has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project, to obtain the recommendations of those agencies as to whether an EIR or Negative Declaration should be prepared for the project. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings. Following completion of this Initial Study, the Lead Agency initiates formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.4 INCORPORATION BY REFERENCE

The following documents were utilized during preparation of this Initial Study and are incorporated into this document by reference. These documents are available for review upon request by contacting Max Castillo, Assistant Planner, at (310) 952-1700 ext. 1317.

- *Carson General Plan* (October 11, 2004). The *Carson General Plan* (General Plan), adopted October 11, 2004, provides guidance to City decision-makers to evaluate land use changes, determine funding and budget recommendations and decisions, and to evaluate specific development proposals. The General Plan allows City staff to regulate building and development and to make recommendations on projects, as well as allowing residents, neighborhood groups, and the community to better understand the long-range plans and vision of the City. The General Plan includes the following elements: Land Use, Economic Development, Transportation and Infrastructure, Housing, Safety, Noise, Open Space and Conservation, Parks, Recreation and Human Services, and Air Quality.

- *Carson General Plan Environmental Impact Report* (July 11, 2003). The *Carson General Plan Environmental Impact Report* (General Plan EIR), certified July 11, 2003, evaluates the impacts associated with implementation of the General Plan. The General Plan EIR evaluates potential environmental impacts and identifies mitigation measures to reduce or avoid possible environmental damage. Mitigation measures were identified for geologic and seismic hazards, hydrology and drainage, public health and safety, and cultural resources. With the application of feasible mitigation measures, some impacts could not be reduced to less-than-significant levels. Significant and unavoidable impacts were identified for transportation, air quality, noise, hydrology, school facilities, and public health and safety. It is acknowledged that the General Plan EIR was recirculated to provide additional information regarding potential impacts associated with a revised Land Use Plan considered as part of the proposed General Plan. This recirculated document was incorporated into the Final General Plan EIR.

- *Carson Municipal Code* (Current through Ordinance No. 19-1936, passed September 3, 2019). The Carson Municipal Code (Municipal Code) provides regulations for government administrative operations, construction, development, infrastructure, public safety, and business operations within the City. The Zoning Ordinance (Article IX of the Municipal Code) is intended to serve the public health, safety, comfort, convenience and general welfare by establishing land use districts designed to obtain the physical, environmental, economic, and social advantages resulting from planned use of land in accordance with the General Plan. The Zoning Ordinance provides a set of regulations which control the land uses; the density of population; the uses and locations of structures; the height of buildings and structures; the ground coverage and open spaces required for uses and structures; the appearance of certain uses and structures; the areas and dimensions of sites; the location, size, and illumination of signs and displays; requirements for off-street parking and off-street loading facilities; provisions for street dedications and improvements; standards for water efficient landscaping; and procedures for administering and amending such regulations and requirements.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The City of Carson (City) is located in the South Bay/Harbor area of the County of Los Angeles (County), approximately 13 miles south of downtown Los Angeles; refer to Exhibit 2-1, *Regional Vicinity*. The City consists of 19.2 square miles and is surrounded by the City of Los Angeles to the north, southeast, south, and northwest. The City of Torrance is located to the west, the City of Compton is located to the northeast, and the City of Long Beach is located to the east. Unincorporated portions of Los Angeles County are also located to the northwest.

The proposed Panattoni Project (project) site is located at 2112 East 223rd Street on a 14.3-acre property (Assessor's Parcel Number [APN] 7315-008-049); refer to Exhibit 2-2, *Site Vicinity*. Regional access to the site is provided via the San Diego Freeway (Interstate 405 [I-405]) and State Route 47 (SR-47). Local access to the site is provided via East 223rd Street.

2.2 ENVIRONMENTAL SETTING

The project site is mostly disturbed and vacant. The project site was formerly developed as a polyvinyl chloride plant and is undergoing remediation activities with the Department of Toxic Substances Control (DTSC). Currently, the southern portion of the project site is developed with an approximately 6,500-square foot Enhanced in Situ Bioremediation Compound building under the ownership of Stauffer Management Company. In addition, several monitoring wells, extraction wells, and intake wells are dispersed throughout the site. Remediation activities are being conducted by Group Delta with oversight by the DTSC.

On-site topography ranges from approximately 25 feet above mean sea level (msl) within the central portion of the site 22 feet above msl along the perimeter of the site. The project site topography generally slopes downward away from the central portion of the site at an estimated gradient of less than one percent. The site contains minimal vegetation; however, several on-site ornamental trees are concentrated at the northwestern corner of the project site. Site access is currently provided via a private driveway at East 223rd Street.

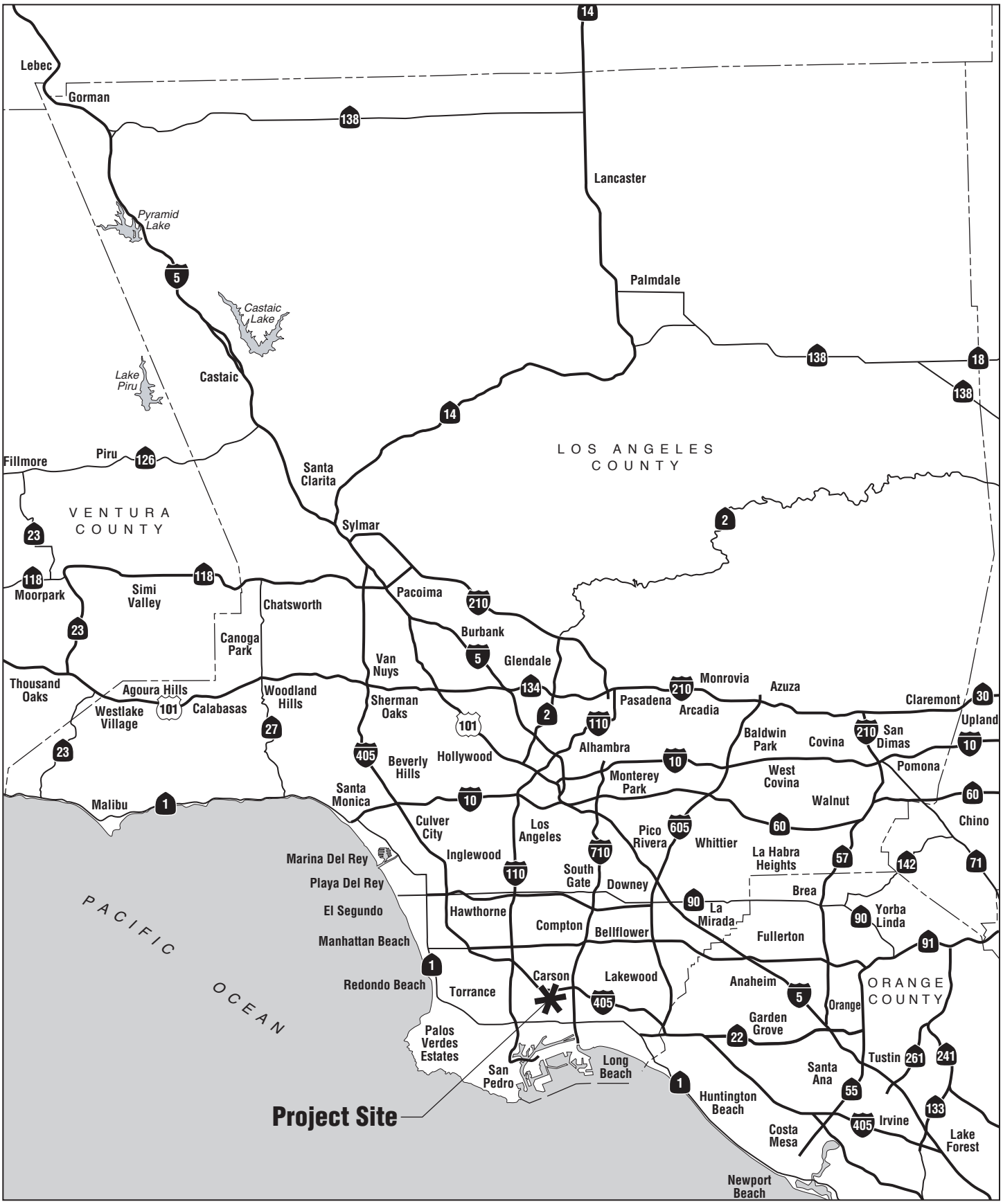
GENERAL PLAN LAND USE DESIGNATION AND ZONING

Based on the General Plan Land Use Map, the project site is designated Business Park (BP). The BP designation is intended to support commercial, business park, and limited industrial uses.

Based on the *City of Carson Zoning Map*, the project site is zoned Manufacturing, Heavy with a Design Overlay (MH-D). The MH zone is created primarily for industrial uses acceptable within the community, with provisions for controlling any adverse effects upon the more sensitive areas of the City. The Design Overlay allows for special site plan and design review for selected areas throughout the City.

SURROUNDING LAND USES

Surrounding land uses include a mixture of commercial, light industrial, heavy industrial, and business park uses. Specifically, land uses surrounding the project site include:



NOT TO SCALE

Michael Baker INTERNATIONAL

01/2020 JN 176815

PANATTONI PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Regional Vicinity

Exhibit 2-1

Source: Google Earth Pro, January 2020

NOT TO SCALE

Michael Baker INTERNATIONAL

Project Site

01/2020 JN 176815

PANATTONI PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Site Vicinity

Exhibit 2-2

- *North:* East 223rd Street bounds the project site to the north with automotive dealerships, designated Regional Commercial (RC) and zoned Commercial Automotive (CA), located further north of East 223rd Street.

- *East:* A vacant property designated Light Industrial (LI) and zoned Manufacturing Light with a Design Overlay (ML-D) bounds the project site to the east. Areas further east include Tesoro Campus Drive, INEOS Olefins & Polymers USA, and Marathon Oil, designated Business Park (BP) and zoned MH-D.

- *South:* Poly One Corporation and Tesoro Refinery, designated Heavy Industrial (HI) and zoned MH-D, are located to the south of the project site.

- *West:* A private driveway bounds the project site to the west with Marathon Badge Office and Harbor Trucking School, designated HI and zoned MH-D, located further west of the private driveway.

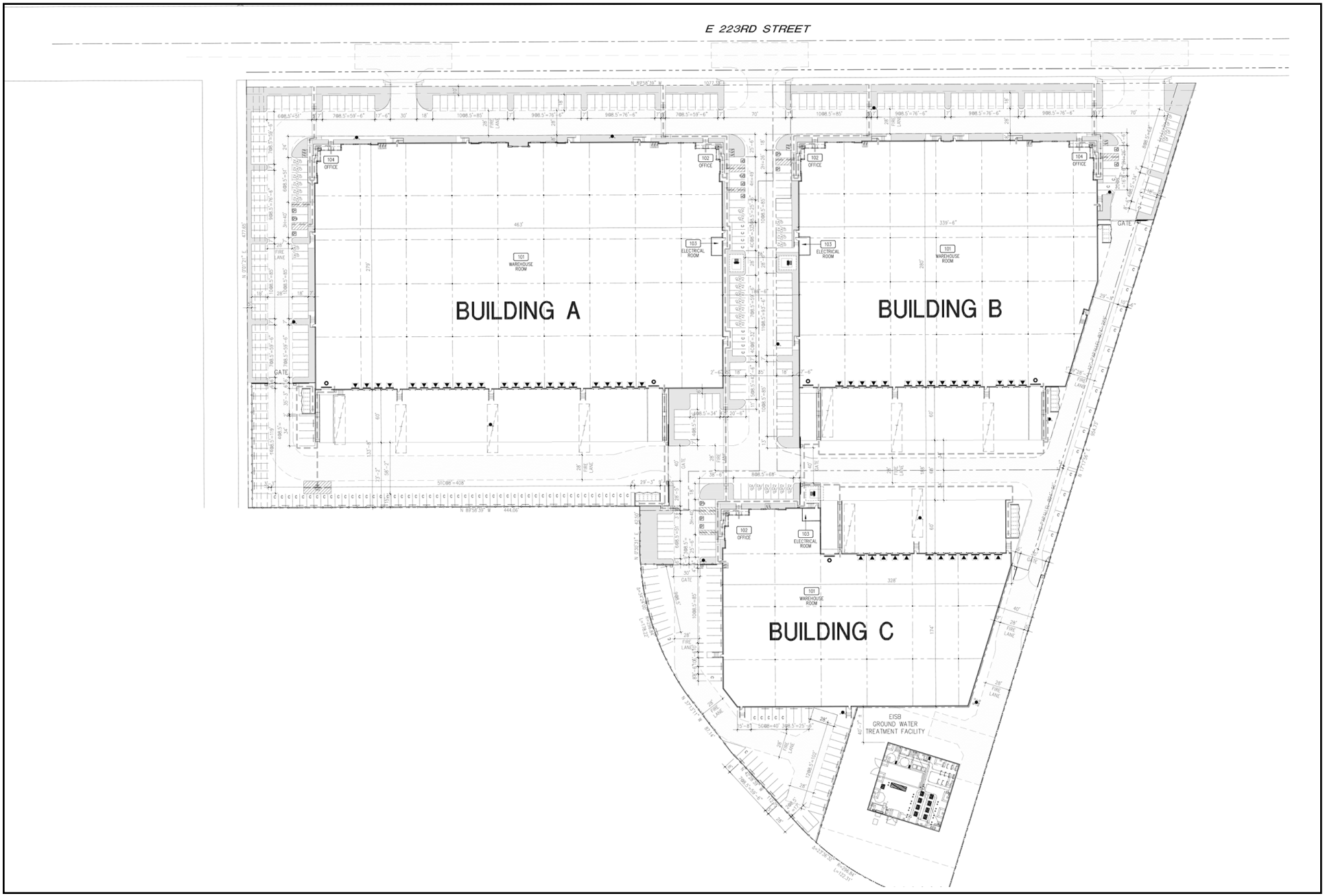
2.3 BACKGROUND AND HISTORY

As discussed above, the project site was a former polyvinyl chloride plant known as Stauffer Chemical Company. The former plant originally encompassed 25 acres in the City and operated between 1959 and 1982, under the ownership of Stauffer Management Company. Since the plant's deactivation in 1982, all buildings, chemical storage, and process facility have been removed. It is acknowledged the site is currently undergoing remediation activities with the DTSC. As such, monitoring wells are operating on-site and an Enhanced in Situ Bioremediation Compound building is located in the southern portion of the project site. Refer to Section 4.9, *Hazards and Hazardous Materials*, for additional information regarding the site's and adjacent properties' former and current uses.

2.4 PROJECT CHARACTERISTICS

The project proposes the construction of a 292,400-square foot warehousing/industrial development. The project would include three concrete tilt-up light industrial buildings (Buildings "A," "B," and "C") ranging from approximately 61,400 to 134,000 square feet; refer to Exhibit 2-3, *Conceptual Site Plan*. Buildings A through C would include offices to support warehousing and/or manufacturing uses, with associated surface parking, landscaping, and truck loading docks for loading/unloading equipment and supplies. A total of 387 parking spaces (14 handicap, 288 standard, 69 compact, and 16 parallel compacts) would be provided for employees and visitors at the surface parking lots located along the site and building perimeters. A total of 54 truck loading docks would also be provided along the southern perimeters of Buildings A and B, and along the northern perimeter of Building C; refer to Exhibit 2-3.

The proposed project includes two development options, one with warehouse and manufacturing uses ("Warehouse and Manufacturing Option") and one with warehouse uses only ("Warehouse Only Option"); refer to Table 2-1, *Land Use Comparison Between Development Options*. It is noted that the building footprints and exterior improvements would remain the same under both development options.



Source: GAA Architects, Scheme D4.3, Site Plan, March 2, 2020.

NOT TO SCALE

Michael Baker INTERNATIONAL

03/2020 JN 176815

PANATTONI PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Conceptual Site Plan

Exhibit 2-3

Table 2-1
Land Use Comparison Between Development Options

Proposed Use	Warehouse and Manufacturing Option (square feet)	Warehouse Only Option (square feet)
Office – 1st Floor	6,000	6,000
Office – 2nd Floor (Mezzanine)	13,000	13,000
Manufacturing	127,200	0
Warehouse	146,200	273,400
Total	**292,400**	**292,400**

Source: GAA Architects, Sheet No. A 1.1, *Site Plan*, November 19, 2019.

WAREHOUSE AND MANUFACTURING OPTION

As indicated in Table 2-2, *Building Areas – Warehouse and Manufacturing Option*, a total of 146,200 square feet of warehouse, 127,200 square feet of manufacturing, 19,000 square feet of office uses are proposed under the Warehouse and Manufacturing Option.

Table 2-2
Building Areas – Warehouse and Manufacturing Option

Proposed Use	Building Area (square feet)			
	Building A	Building B	Building C	Total
Office – 1st Floor	2,000	2,000	2,000	*6,000*
Office – 2nd Floor (Mezzanine)	5,000	5,000	3,000	*13,000*
Manufacturing	60,000	41,500	25,700	*127,200*
Warehouse	67,000	48,500	30,700	*146,200*
Total	**134,000**	**97,000**	**61,400**	***292,400***

Source: GAA Architects, Sheet No. A 1.1, *Site Plan*, November 19, 2019.

WAREHOUSE ONLY OPTION

As indicated in Table 2-3, *Building Areas – Warehouse Only Option*, a total of 273,400 square feet of warehouse and 19,000 square feet of office uses are proposed under the Warehouse Only Option.

Table 2-3
Building Areas – Warehouse Only Option

Proposed Use	Building Area (square feet)			
	Building A	Building B	Building C	Total
Office- 1st Floor	2,000	2,000	2,000	*6,000*
Office – 2nd Floor (Mezzanine)	5,000	5,000	3,000	*13,000*
Warehouse	127,000	90,000	56,400	*273,400*
Total	**134,000**	**97,000**	**61,400**	***292,400***

Source: GAA Architects, Sheet No. A 1.1, *Site Plan*, November 19, 2019.

ARCHITECTUAL DESIGN

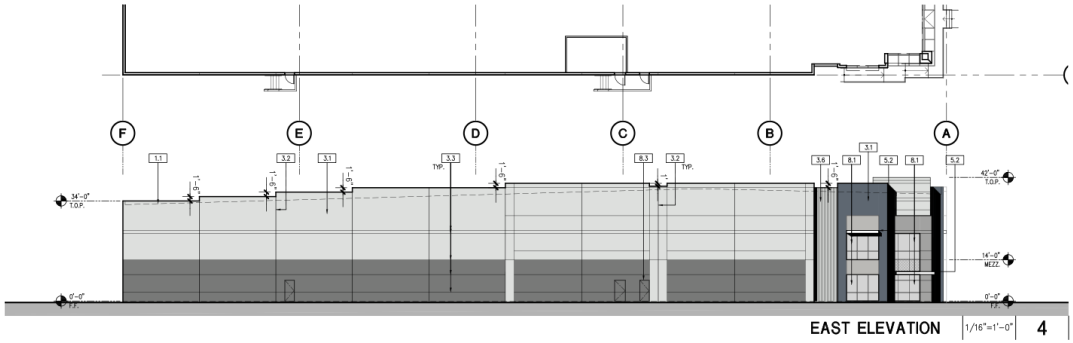
Proposed structure siting and footprint would remain the same under both development options. Buildings A through C would range in height between 34 and 42 feet and would be constructed of concrete tilt-up panels; refer to Exhibit 2-4a, *Proposed Elevations – Building A*, Exhibit 2-4b, *Proposed Elevations – Building B*, and Exhibit 2-4c, *Proposed Elevations – Building C*. The building's exterior color palette is proposed to include various shades of grey. The landscaped frontage along East 223rd Street, as well as Buildings A and B, would screen the proposed truck loading docks within the central portion of the site from public views. Heating, ventilation, and air conditioning (HVAC) equipment would be roof-mounted, and also screened from public view via parapets. A 6-foot-high tube steel wrought iron look fence is proposed along the east, south, and west project boundaries.

LANDSCAPE DESIGN

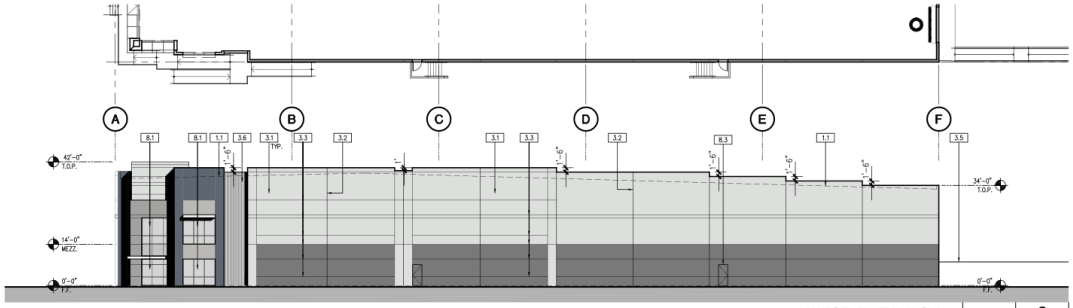
Approximately 30,522 square feet of ornamental landscaping would be installed throughout the project site generally located along the project's frontage and internal drive aisles; refer to Exhibit 2-5, *Conceptual Landscape Plan*. Planting materials would include a variety of ornamental trees, including London plane tree, fern pine, Italian cypress, African sumac, Bailey acacia, Brisbane box trees, and crape myrtle. In addition, shrubs, groundcover, and shrub masses would be dispersed throughout the project site. The project's frontage along East 223rd Street would include a new sidewalk with layered groundcover, shrub masses, street trees, as well as a continuous screen shrub hedge to soften project hardscapes and screen public views of the project site.

ACCESS AND CIRCULATION

Both development options propose the same roadway improvements to provide site access and circulation. Site access would be provided via three full access driveways along East 233rd Street. The proposed loading docks and storage areas along the southern perimeters of Building A and Building B, and along the northern perimeter of Building C, would be gated from the site access points via 8-foot tube steel wrought iron look gates with knox padlocks. Internal vehicular circulation would be provided via the perimeter of Buildings A, B, and C, as depicted on Exhibit 2-3. The proposed driveways and interior vehicular circulation are designed to meet the Fire Department turning radius requirements, as well as truck traffic. It is noted that the City has approved a Capital Improvement Project to replace the existing sidewalk, curb, and gutter along the project's frontage at East 223rd Street beginning in September 2020.



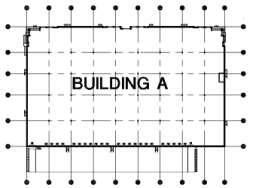
EAST ELEVATION 1/16"=1'-0" 4

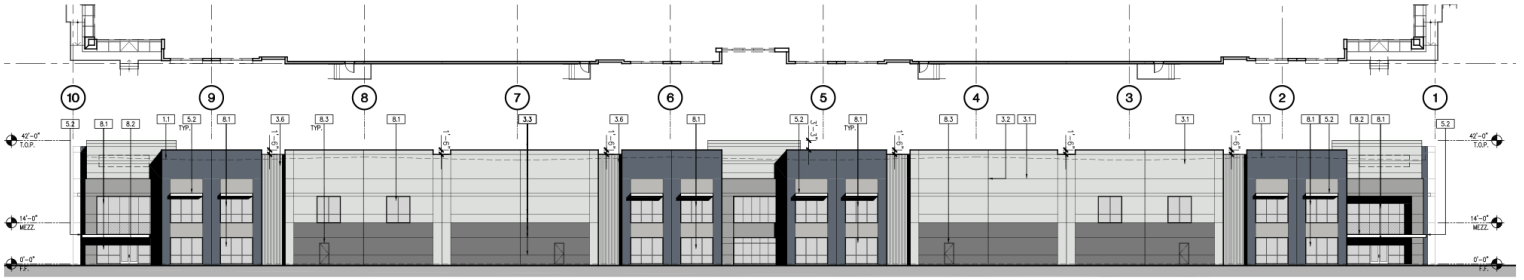


WEST ELEVATION 1/16"=1'-0" 3

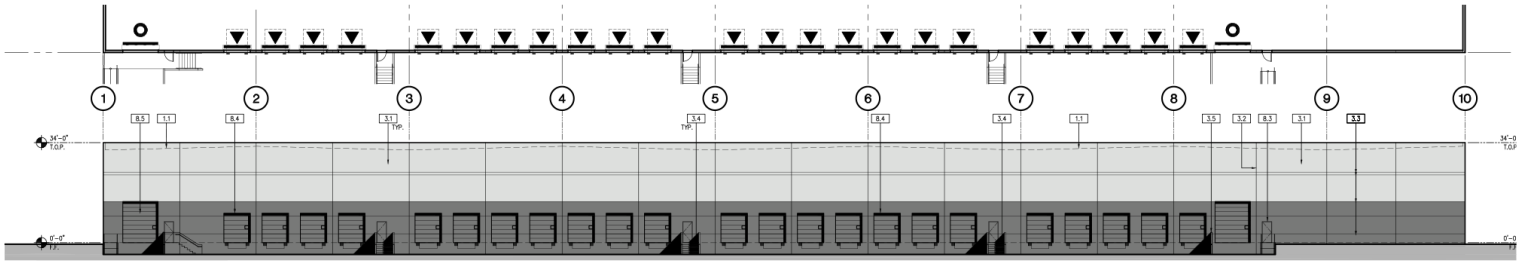
BUILDING AERIAL 7

ENTRY PERSPECTIVE 6





NORTH ELEVATION 1/16"=1'-0" 2



SOUTH ELEVATION 1/16"=1'-0" 1

Source: GAA Architects, Sheet No. A4.1, Building A – Elevations, November 14, 2019.

NOT TO SCALE

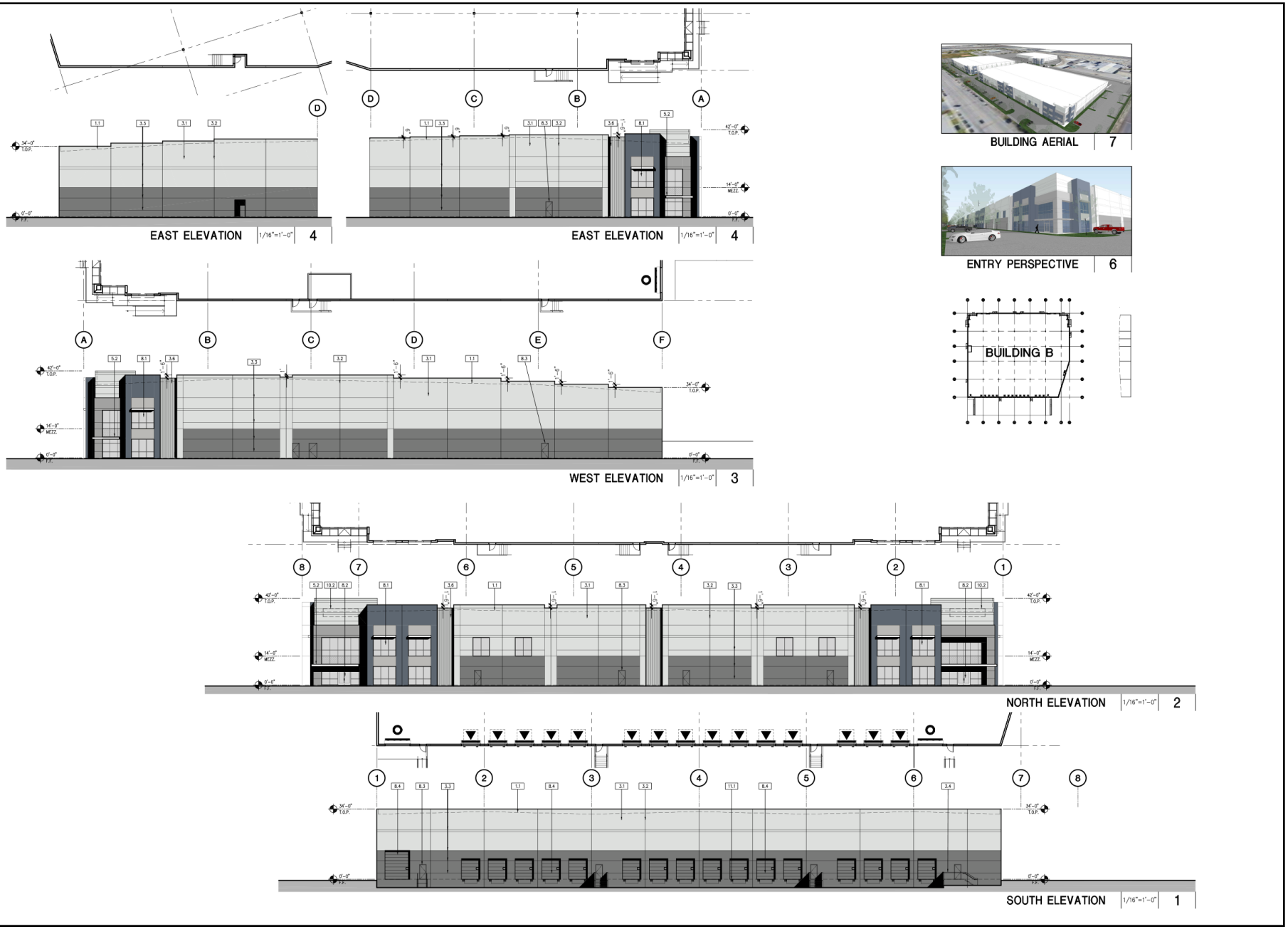
Michael Baker INTERNATIONAL

02/2020 JN 176815

PANATTONI PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Proposed Elevations – Building A

Exhibit 2-4a



Source: GAA Architects, Sheet No. A4.2, Building B – Elevations, November 14, 2019.

NOT TO SCALE

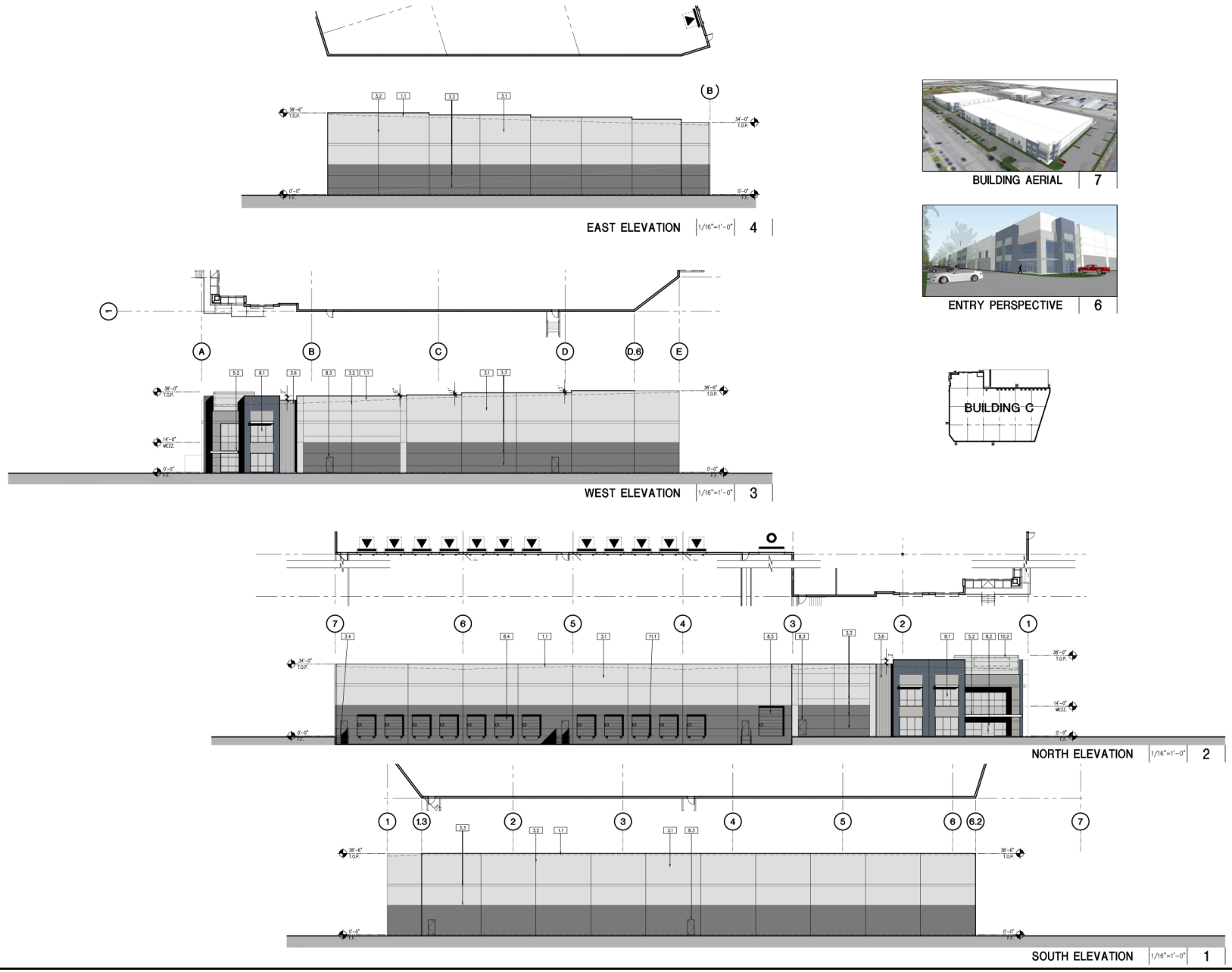
Michael Baker INTERNATIONAL

02/2020 JN 176815

PANATTONI PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Proposed Elevations – Building B

Exhibit 2-4b



Source: GAA Architects, Sheet No. A4.3, Building C – Elevations, November 14, 2019.

NOT TO SCALE

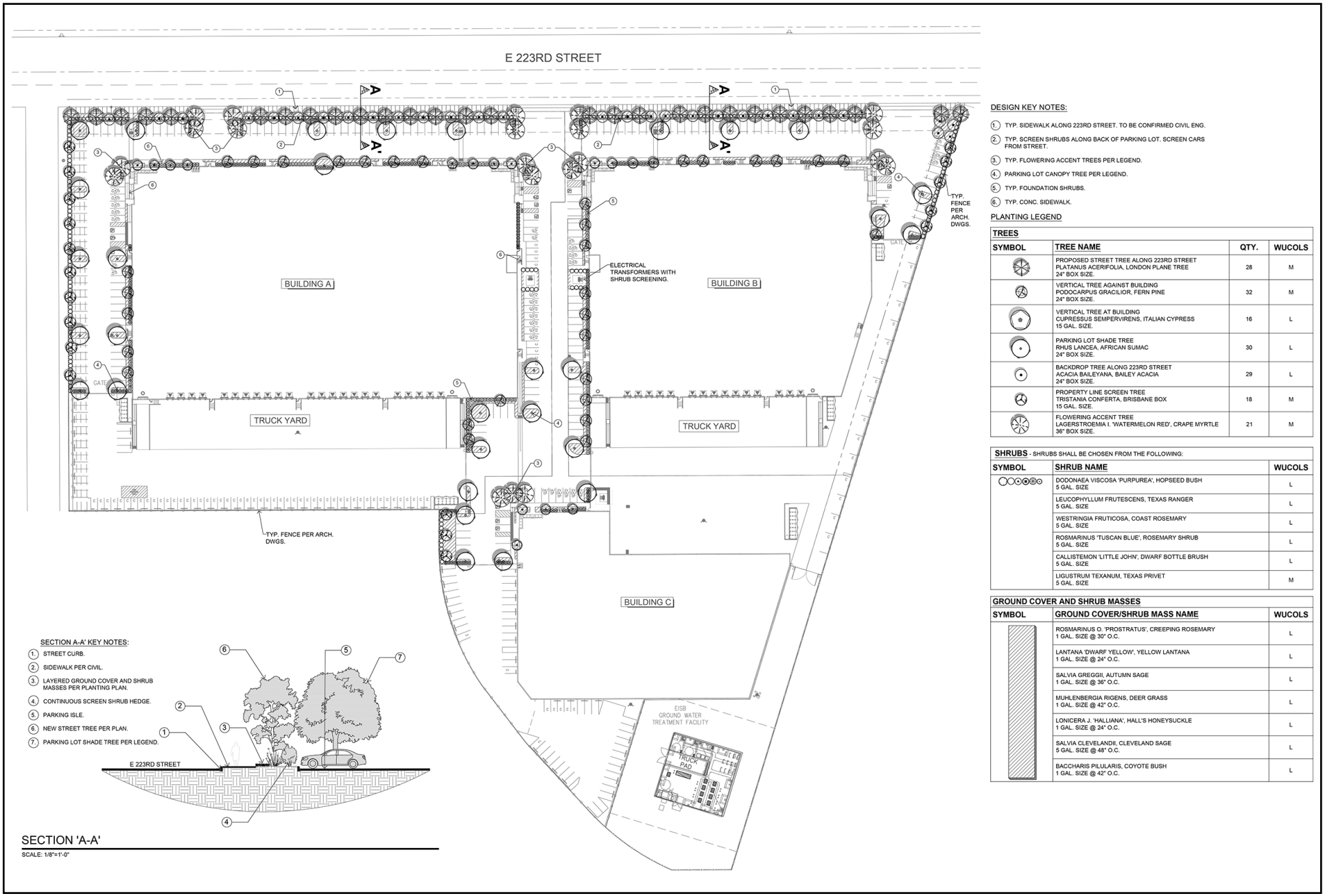
Michael Baker INTERNATIONAL

02/2020 JN 176815

PANATTONI PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Proposed Elevations – Building C

Exhibit 2-4c



DESIGN KEY NOTES:

1. TYP. SIDEWALK ALONG 223RD STREET. TO BE CONFIRMED CIVIL ENG.
2. TYP. SCREEN SHRUBS ALONG BACK OF PARKING LOT. SCREEN CARS FROM STREET.
3. TYP. FLOWERING ACCENT TREES PER LEGEND.
4. PARKING LOT CANOPY TREE PER LEGEND.
5. TYP. FOUNDATION SHRUBS.
6. TYP. CONC. SIDEWALK.

PLANTING LEGEND

TREES

SYMBOL	TREE NAME	QTY.	WUCOLS
	PROPOSED STREET TREE ALONG 223RD STREET PLATANUS ACERIFOLIA, LONDON PLANE TREE 24" BOX SIZE.	28	M
	VERTICAL TREE AGAINST BUILDING PODOCARPUS GRACILIOR, FERN PINE 24" BOX SIZE.	32	M
	VERTICAL TREE AT BUILDING CUPRESSUS SEMPERVIRENS, ITALIAN CYPRESS 15 GAL. SIZE.	16	L
	PARKING LOT SHADE TREE RHUS LANCEA, AFRICAN SUMAC 24" BOX SIZE.	30	L
	BACKDROP TREE ALONG 223RD STREET ACACIA BAILEYANA, BAILEY ACACIA 24" BOX SIZE.	29	L
	PROPERTY LINE SCREEN TREE TRISTANIA CONFERTA, BRISBANE BOX 15 GAL. SIZE.	18	M
	FLOWERING ACCENT TREE LAGERSTROEMIA I. 'WATERMELON RED', CRAPE MYRTLE 36" BOX SIZE.	21	M

SHRUBS - SHRUBS SHALL BE CHOSEN FROM THE FOLLOWING:

SYMBOL	SHRUB NAME	WUCOLS
	DODONAEA VISCOSA 'PURPUREA', HOPSEED BUSH 5 GAL. SIZE	L
	LEUCOPHYLLUM FRUTESCENS, TEXAS RANGER 5 GAL. SIZE	L
	WESTRINGIA FRUTICOSA, COAST ROSEMARY 5 GAL. SIZE	L
	ROSMARINUS 'TUSCAN BLUE', ROSEMARY SHRUB 5 GAL. SIZE	L
	CALLISTEMON 'LITTLE JOHN', DWARF BOTTLE BRUSH 5 GAL. SIZE	L
	LIGUSTRUM TEXANUM, TEXAS PRIVET 5 GAL. SIZE	M

GROUND COVER AND SHRUB MASSES

SYMBOL	GROUND COVER/SHRUB MASS NAME	WUCOLS
	ROSMARINUS O. 'PROSTRATUS', CREEPING ROSEMARY 1 GAL. SIZE @ 30" O.C.	L
	LANTANA 'DWARF YELLOW', YELLOW LANTANA 1 GAL. SIZE @ 24" O.C.	L
	SALVIA GREGGII, AUTUMN SAGE 1 GAL. SIZE @ 36" O.C.	L
	MUHLENBERGIA RIGENS, DEER GRASS 1 GAL. SIZE @ 42" O.C.	L
	LONICERA J. 'HALLIANA', HALL'S HONEYSUCKLE 1 GAL. SIZE @ 24" O.C.	L
	SALVIA CLEVELANDII, CLEVELAND SAGE 5 GAL. SIZE @ 48" O.C.	L
	BACCHARIS PILULARIS, COYOTE BUSH 1 GAL. SIZE @ 42" O.C.	L

SECTION A-A' KEY NOTES:

1. STREET CURB.
2. SIDEWALK PER CIVIL.
3. LAYERED GROUND COVER AND SHRUB MASSES PER PLANTING PLAN.
4. CONTINUOUS SCREEN SHRUB HEDGE.
5. PARKING ISLE.
6. NEW STREET TREE PER PLAN.
7. PARKING LOT SHADE TREE PER LEGEND.

SECTION 'A-A'

SCALE: 1/8"=1'-0"

Source: Scott Peterson Landscape Architect, Inc., Sheet L-1, *Conceptual Landscape Plan,* dated February 27, 2020.

NOT TO SCALE

Michael Baker INTERNATIONAL

03/2020 JN 176815

PANATTONI PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Conceptual Landscape Plan

Exhibit 2-5

UTILITIES AND SERVICES

The project proposes the following utility infrastructure improvements:

- *Water*: California Water Service Company Rancho Dominguez District would provide water services to the project site. The project would construct a new network of 3-inch polyvinyl chloride (PVC) domestic water laterals and 2-inch domestic water meter and backflow to connect the project to an existing 12-inch water mainline within East 223rd Street. The project would also install an irrigation service line with an associated 2-inch water meter and backflow north of Building B. Seven new fire hydrants and 10-inch PVC fire water laterals would be installed around the building perimeters to connect to the existing utilities in East 223rd Street.

- *Sewer:* The project would construct a private on-site sewer system that would connect to the Sanitation Districts of Los Angeles County's existing 24-inch diameter Davidson City Trunk Sewer located in 223rd Street, to the west of Johns Manville Street.

- *Drainage:* There is no existing on-site drainage system and surface runoff currently ponds at the southwestern portion of the site. The project proposes to grade the site such that runoff from the northerly portions of Buildings A and B and the northerly parking areas would drain to grate inlets located in the northerly parking area. An underground storm drain system would convey this runoff southerly between Buildings A and B and then westerly around the south side of Building A. Runoff from Building C and the southerly portions of Buildings A and B would drain to grate inlets located within the truck docking areas. The proposed on-site storm drain system would then continue northerly towards East 223rd Street. The proposed landscaped areas adjacent to East 223rd Street would sheet flow into the street.

  Existing utilities located within East 223rd Street would prevent the project's on-site storm drain system from connecting to the existing storm drain facility in 223rd Street. Therefore, a sump pump would be installed to pump a portion of the project's runoff to the street, with the remaining volume temporarily stored on-site within a proposed underground detention system and on the surface of the truck yard.

- *Gas/Electric:* Southern California Gas Company and Southern California Edison would provide natural gas and electricity services to the project site, respectively. Appropriate connections to the existing gas and electric utilities, located within East 223rd Street, would be used to connect the new buildings.

GENERAL PLAN AMENDMENT

To ensure consistency between the proposed warehousing/industrial development and the General Plan, the project would require a General Plan Amendment to change the site's land use designation from BP to Light Industrial (LI).

ZONE CHANGE

The project would require approval of a Zone Change to modify the project site's zoning from MH-D to Manufacturing, Light with a Design Overlay (ML-D).

2.5 PHASING/CONSTRUCTION

The project would be constructed in a single-phase over a duration of 13 months beginning in October 2020. It is anticipated the project would be fully operational by December 2021. Construction of the project would include demolition, grading, building construction, paving, and architectural coating. The proposed earthwork would involve approximately 41,600 cubic yards of cut and approximately 37,829 cubic yards of fill. Approximately 27,400 cubic yards of imported soils would be required.

2.6 AGREEMENTS, PERMITS, AND APPROVALS

The proposed project would require agreements, permits, and approvals from the City and other agencies prior to construction. The project requires agreements, permits, and approvals, such as grading permit building and safety permit, certificate of occupancy, and street improvement permit. The following describes City discretionary actions, as well as agreements, permits, and approvals from other regional and State agencies. It is acknowledged that these agreements, permits, and approvals may change as the project entitlement process proceeds.

City of Carson – Lead Agency

- California Environmental Quality Act Approval;
- General Plan Amendment;
- Zone Change; and
- Site Plan and Design Review.

Los Angeles Regional Water Quality Control Board – Responsible Agency

- National Pollutant Discharge Elimination System (NPDES) Permit.

Department of Toxic Substances Control – Responsible Agency

- Groundwater Monitoring Well Relocation.

California Water Service Company Rancho Dominguez District

- Water Connection Permit.

Sanitation Districts of Los Angeles County

- Sewer Connection Permit.

This page intentionally left blank.

3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1. **Project Title:**
   Panattoni Project

2. **Lead Agency Name and Address:**
   City of Carson
   701 East Carson Street
   Carson, California 90745

3. **Contact Person and Phone Number:**
   Max Castillo, Assistant Planner
   City of Carson
   310.952.1700 Ext. 1317

4. **Project Location:**
   The proposed project is located at 2112 East 223rd Street in the City of Carson, California.

5. **Project Sponsor's Name and Address:**
   Panattoni Development Company, Inc.
   2442 Dupont Drive
   Irvine, California 92612

6. **General Plan Designation:**
   Business Park (BP)

7. **Zoning:**
   Manufacturing, Heavy with a Design Overlay (MH-D)

8. **Description of Project:**
   Refer to Section 2.4, *Project Characteristics*.

9. **Surrounding Land Uses and Setting:**
   Surrounding land uses include a mixture of commercial, light industrial, heavy industrial, and business park uses; refer to Section 2.2, *Environmental Setting*.

10. **Other public agencies whose approval is required:**
    Los Angeles Regional Water Quality Control Board, Department of Toxic Substances Control, California Water Service Company Rancho Dominguez District, Sanitation Districts of Los Angeles County

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**
    In compliance with AB 52, the City distributed letters to applicable Native American tribes informing them of the project on January 30, 2020. The Gabrieleno Band of Mission Indians – Kizh Nation requested consultation and the City consulted with the tribe on March 12, 2020. Based on consultation with the Gabrieleno Band of Mission

Indians – Kizh Nation, the project's proposed ground disturbance activities could uncover unknown tribal cultural resources. Refer to Section 4.18, *Tribal Cultural Resources*, for additional information.

3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less Than Significant Impact with Mitigation Incorporated," as indicated by the following checklist.

☐	Aesthetics	☐	Agriculture and Forestry	☐	Air Quality
☐	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology and Soils	☐	Greenhouse Gas Emissions	☒	Hazards and Hazardous Materials
☐	Hydrology and Water Quality	☐	Land Use and Planning	☐	Mineral Resources
☒	Noise	☐	Population and Housing	☐	Public Services
☐	Recreation	☒	Transportation	☒	Tribal Cultural Resources
☐	Utilities and Service Systems	☐	Wildfire	☒	Mandatory Findings of Significance

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

This Initial Study analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated include:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines Appendix G and used by the City of Carson in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- *No Impact*. The development will not have any measurable environmental impact on the environment.

- *Less Than Significant Impact*. The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- *Less Than Significant Impact With Mitigation Incorporated*. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- *Potentially Significant Impact*. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

This page intentionally left blank.

4.0 ENVIRONMENTAL ANALYSIS

4.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?				✓
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			✓	
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			✓	

a) Have a substantial adverse effect on a scenic vista?

No Impact. According to the General Plan EIR, there are no officially designated scenic vistas or visual resources within the City of Carson. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact. There are no officially-designated State scenic highways in the City of Carson.[1] Further, the General Plan does not identify any scenic highways, roadways, or corridors within the City. The nearest scenic highway is State Route 1 (SR-1) (designated as eligible for listing), which is located over five miles to the southeast of the project site. Views of the project site are not afforded from SR-1 due to intervening topography, structures, and vegetation. Thus, the project would not substantially damage scenic resources within a State scenic highway. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[1] California Department of Transportation, *List of Eligible and Officially Designated State Scenic Highways*, updated July 2019.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. As discussed in Section 2.2, *Environmental Setting*, the project site is situated in an urbanized area. Surrounding land uses include a mixture of commercial, light industrial, heavy industrial, and business park uses; refer to Exhibit 4.1-1, *Existing Conditions Photographs*. As the project is located in an urbanized area, the following analyzes the project's potential to conflict with applicable zoning and other regulations governing scenic quality.

The project would require a Zone Change to modify the project site's existing zoning from Manufacturing, Heavy with a Design Overlay (MH-D) to Manufacturing, Light with a Design Overlay (ML-D). It is acknowledged that the project site was formerly developed with a former polyvinyl chloride plant. This facility has since been demolished and the project site remains heavily disturbed vacant land for the most part. City regulations governing scenic quality for properties in the ML-D zone include regulations governing visible encroachments into public views, signage, undergrounding of utility lines, and site planning and design requirements intended to improve the overall scenic quality of development in this zone. These regulations are provided in Municipal Code Article IX, Division 6, *Site Development Standards*, and are provided in Table 4.1-1, *Municipal Code Consistency Analysis Governing Scenic Quality*, along with a consistency analysis of the proposed project. Refer to Section 4.11, *Land Use and Planning*, for a discussion concerning the project's consistency with other applicable zoning requirements.

Table 4.1-1
Municipal Code Consistency Analysis Governing Scenic Quality

Relevant Section	Consistency Analysis
9146.29 Encroachments: Every part of a required yard or open space shall be open and unobstructed from finished grade to the sky except for facilities and activities as follows: A. Projections from buildings (such as eaves, awnings and shading devices; signs; architectural features; utility meters; conduits and pipes; unenclosed and unroofed stairways, landings, porches and balconies; chimneys; and mechanical equipment) may project into a required yard not more than one-half of the width of the required yard, except that only such projections permitted into a required front yard or a required side yard abutting a street shall be for eaves, awnings, shading devices, architectural features and signs. No projections are permitted into future right-of-way areas as determined under Municipal Code Section 9146.22. B. Free-standing mechanical equipment is not permitted in any required yard except those additional yard areas required because of building height. C. Utility-owned facilities are permitted in any required yard if also located in an approved utility easement.	**Consistent.** The proposed front, side, and rear setbacks would be free from the encroachments specified by Municipal Code Section 9146.29; refer to Exhibit 2-3, *Conceptual Site Plan*. No open space is proposed. The project does not propose building projections which would project into a required yard more than one-half of the width of the required yard. No projections are proposed into the project's front yard or future right-of-way areas. The project would not conflict with Municipal Code Section 9146.29(A). The project does not propose free-standing mechanical equipment. The project would not conflict with Municipal Code Section 9146.29(B). The project does not include utility-owned facilities in any required yard and would not conflict with Municipal Code Section 9146.29(C).

Existing trees located within the northwestern limits of the project site.

Southern view of Poly One Corporation to the south of the project site.

Southwestern view of the on-site Enhanced In Situ Bioremediation Building.

Northeastern view of the project site.

Southwestern view of vacant uses to the east of the project site.

Existing automotive dealerships located to the north of the project site.

Existing Conditions Photographs

Relevant Section	Consistency Analysis
D. Signs are permitted in required yards other than in existing or future street rights-of-way if in accordance with the provisions of Municipal Code Section 9146.7. E. Swimming pools are permitted in required yards other than future right-of-way areas provided the pool is set back from the front lot line at least twenty-five (25) feet or twenty-five (25) percent of the lot depth, whichever is less, and is not less than five (5) feet from any other lot line. F. Fences, walls, and hedges shall not be higher than eight (8) feet above finished grade in a future right-of-way, front yard, or in a side or rear yard which abuts a residential zone. In a required front yard or abutting future right-of-way area, any portion of a fence, wall or hedge above three and one-half (3-1/2) feet in height shall not impair vision by obscuring more than ten (10) percent of the area in the vertical plane unless approved by the Director pursuant to the procedures and requirements for Site Plan and Design Review contained in Municipal Code Section 9172.23. G. Landscaping (other than hedges) is permitted in any required yard or open space. H. Outdoor display of goods. The following items may be displayed in any required yard area, but not in a required parking area: • Vehicles (automobiles, motorcycles, motorscooters, bicycles, recreational vehicles, trucks, mobile homes, or other vehicles). • Boats. • Agricultural produce. • Nursery stock. • Flowers and plants. • Christmas trees. • Similar items as determined in accordance with the Interpretation procedure of Municipal Code Section 9172.24. The following items may be displayed in yard areas other than a required front yard and any abutting future right-of-way area, but not in a required parking area: • Garden equipment and supplies. • Building materials. • Monuments, tombstones, statuary. • Similar items as determined in accordance with the Interpretation procedure of Municipal Code Section 9172.24.	Although the nature of future uses is described in Section 2.4, specific future tenants and associated signage are unknown at this time. All future signage at the project site would be required to comply with Municipal Code Section 9146.7 as part of the Site Plan and Design Review Process. The City would verify that the positioning and size of future signage conforms with the design standards included in Municipal Code Section 9146.7. It is acknowledged that future tenants/the property owner are/is permitted to apply for a sign under a separate permit, at which time the proposed sign would be reviewed for conformance with Municipal Code Section 9146.7 The project would not conflict with Municipal Code Section 9146.29(D). The project does not propose swimming pools and would not conflict with Municipal Code Section 9146.29(E). The proposed project does not abut a residential zone and thus is not subject to the height requirements specified under Municipal Code Section 9146.29(F). As indicated in Section 2.4, *Project Characteristics*, a six-foot high tube steel wrought iron look fence is proposed along the east, south, and west project boundaries. The landscaping improvements proposed along the project's frontage at East 223rd Street would not impair vision; rather, these improvements would include layered groundcover, shrub masses, street trees, as well as a continuous screen shrub hedge to soften project hardscapes and screen public views of the project site; refer to Exhibit 2-5, *Conceptual Landscape Plan*. The proposed project would be consistent with Municipal Code Section 9146.29(G) in this regard. The project does not propose outdoor display of goods or outdoor storage areas and would not conflict with Municipal Code Section 9146.29(H) through (J). The project does not propose outdoor employee recreation and eating facilities and would not conflict with Municipal Code Section 9146.29(K). No parking is proposed within ten feet of existing or future street right-of-way; refer to Exhibit 2-3. The proposed project would be consistent with Municipal Code Section 9146.29(L). The project does not propose railroad spur tracks in any side yard and would not conflict with Municipal Code Section 9146.29(M).

Relevant Section	Consistency Analysis
• Items displayed must be in the form in which marketed (no raw materials or subassemblies). I. Outdoor storage is permitted only in yards other than a required front yard and abutting future right-of-way area, but not in a required parking area. J. Outdoor storage areas shall be screened from view from any adjoining public street or walkway. K. Employee recreation and eating facilities (no buildings) are permitted in any yard other than a required front yard and adjacent future street right-of-way, but not in a required parking area. L. Parking is permitted in required yards except the area within ten (10) feet of an existing or future street right-of-way. (See Municipal Code Section 9162.52.) M. Railroad spur tracks are permitted in any yard other than a required yard adjacent to a street (front or side) and any adjacent future street right-of-way.	
9146.7 Signs*: A. Business signs are permitted, subject to the following: 1. All business signs and sign structures shall be permitted in conformance with development plans which have been approved pursuant to the Site Plan and Design Review procedures (including the number of signs and sign structures to be permitted) as provided in Municipal Code Section 9172.23. All signs and sign structures shall also comply with the minimum requirements, as outlined in this Section of the Zoning Ordinance. 2. The total sign area per lot shall not exceed an area in square feet equal to two (2) times the linear feet of lot frontage on a public street or streets for the first one hundred (100) feet of frontage, plus one-half (1/2) times the frontage in excess of one hundred (100) feet. Window signage shall not exceed ten (10) percent of window area. Lot frontage on a freeway shall not be considered in computing this figure. When the total frontage of a lot is less than the square root of the lot's area, said frontage shall be deemed to be equal to the square root of the lot's area for the purpose of determining the permitted sign area. Any primary use which is developed commercially may be permitted to have a sign area equal to that permitted by Municipal Code Section 9136.7(B)(2); provided, that a deed restriction is recorded in the offices of	**Consistent.** Although the nature of future uses is described in Section 2.4, specific future tenants and associated signage are unknown at this time. All future signage at the project site would be required to comply with Municipal Code Section 9146.7 as part of the Site Plan and Design Review Process. The City would verify that the positioning and size of future signage conforms with the design standards included in Municipal Code Section 9146.7. It is acknowledged that future tenants/the property owner are/is permitted to apply for a sign under a separate permit, at which time the proposed sign would be reviewed for conformance with Municipal Code Section 9146.7. Thus, the proposed project would not conflict with Municipal Code Section 9146.7.

Relevant Section	Consistency Analysis
the County Recorder, restricting the use on the property to a commercial use, and proof of such recordation is submitted to the satisfaction of the Director. 3. Repealed by Ord. 16-1602. 4. A ground sign in excess of six (6) feet in height shall not be permitted. The distance between ground elevation and the bottom of a ground sign shall not exceed one (1) foot. Not more than one (1) ground sign shall be permitted on a lot. No ground sign shall be erected until written approval is obtained from the City Traffic Engineer. Such signs shall be in conformance with development plans which have been approved pursuant to the Site Plan and Design Review procedure as provided in Municipal Code Section 9172.23. 5. A sign may be affixed to a building but shall not project above the height of the building wall or roof fascia. 6. A sign shall not project into an existing or future right-of-way. 7. No "A" frame or "sandwich" sign or scintillating, flashing or revolving sign shall be permitted. 8. Electronic message center signs are permitted, subject to the following: (a) Such sign shall be at least one hundred (100) feet from a residential zone. (b) Such sign shall be at least five hundred (500) feet from any other electronic message center sign. (c) Such sign shall be affixed to a pole and subject to the pole sign limitations of this Chapter. (d) A conditional use permit (CUP) shall be required for all electronic message center signs in accordance with provisions set forth in Municipal Code Section 9172.21. Approval shall not be granted if the Commission finds that the proposed sign would interfere with traffic signals, disrupt normal traffic flow or otherwise create a safety hazard.	
9146.8 Utilities: All new utility lines, other than major transmission lines, shall be placed underground. This requirement may be waived by the Commission where topography, soil, undue financial hardship or other conditions make such underground installation unreasonable or impractical. Undergrounding shall be in accordance with the applicable rules	**Consistent.** As discussed in Section 2.4, the project proposes water, sewer, drainage, and gas/electric utility infrastructure improvements and services necessary to serve the project's anticipated development. All such project utility infrastructure improvements would be placed underground in conformance with Municipal Code Section

Relevant Section	Consistency Analysis
and regulations of the utility, as currently on file with the California Public Utilities Commission. All aboveground equipment (other than pole lines when permitted), such as transformers and pedestal terminals, which are visible from an adjacent public street or walkway, shall be within a solid enclosure or otherwise screened from public view. Such enclosure/screening shall be in accordance with the utility's service requirement.	9146.8 requirements. The project would be consistent with Municipal Code Section 9146.8.
9146.9 Site Planning and Design. In the case of a commercial or industrial use located on a corner lot, no public pedestrian entrance from a side street shall be located less than one hundred (100) feet from any residential zone. Roof-mounted structures and equipment shall not extend more than ten (10) feet above the roof, measured from the point of attachment. If such roof projections are not incorporated in the building design as architectural features, they shall be screened from view from any adjoining public street or walkway. Mechanical equipment not enclosed within a building shall be screened from view from any adjoining public street or walkway. Within one hundred (100) feet of a residential zone, there shall be no opening in the wall of a nonresidential building where such wall faces a residential zone. Within any D (Design Overlay) designated area, all development subsequent to the date of such designation shall be in conformance with development plans which have been approved pursuant to the Site Plan and Design Review procedure as provided in Municipal Code Section 9172.23. No permit shall be issued for grading or construction involving significant exterior changes, as determined by the Director, which is not in conformance with such approved development plans.	**Consistent.** The proposed project is not located on a corner lot and is not located within 100 feet from any residential zone. Heating, ventilation, and air conditioning (HVAC) equipment would be roof-mounted, and also screened from public view via parapets. HVAC equipment would not extend more than 10 feet above the roof. The project does not propose mechanical equipment outside of the Buildings A, B, and C and thus would not have the potential to impact views from adjoining public streets or walkways. The proposed project is located within a Design Overlay designated area. As noted in Section 2.6, *Agreements, Permits, and Approvals*, the proposed project would be subject to the City's Site Plan and Design Review process. As a result, all development would be in conformance with the development plans which have been approved pursuant to the Site Plan and Design Review procedure. The proposed project would be consistent with Municipal Code Section 9146.9.

Source: City of Carson, *Carson Municipal Code*, current through Ordinance No. 19-1936, passed September 3, 2019.

As indicated in Table 4.1-1, the proposed project would be consistent with applicable Municipal Code requirements that govern scenic quality. Further, the project would be subject to special site plan and design review as required by the City's Design Overlay Review process. This regulatory procedure would enforce the City's regulations governing scenic quality for the project site and surrounding area. As a result, implementation of the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.

Mitigation Measures: No mitigation is required.

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. A potentially significant impact would occur if a new source of substantial light or glare causes an adverse effect on day or nighttime views. Light impacts are typically associated with the use of artificial light during the evening and nighttime hours. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare generation is common in urban areas and is typically associated with mid- to high-rise buildings with exterior façades largely or entirely comprising highly

reflective glass or mirror-like materials. Nighttime glare is primarily associated with bright point source lighting that contrasts with existing low ambient light conditions.

CONSTRUCTION

The project would be required to comply with the Municipal Code Section 4104(i) and 4101(j) for allowable construction hours, which are limited to between 7:00 a.m. and 6:00 p.m. on weekdays and Saturdays. Construction is not allowed on Sundays and City holidays. No nighttime construction is proposed. Thus, as no construction activities would occur after 6:00 p.m., no short-term construction-related lighting impacts would result.

OPERATIONS

Existing lighting sources within the project boundaries include safety lighting associated with the Enhanced In Situ Bioremediation Building as well as street lighting along the project's frontage at East 223rd Street. The project site is surrounded on all sides by urbanized uses which contribute to ambient lighting conditions (such as security lighting for automobile dealerships north of the project site). Vehicles travelling along East 223rd Street also contribute to ambient lighting.

The proposed project would increase lighting at the project site compared to existing conditions. Pursuant to Municipal Code Section 9147.1, *Exterior Lighting*, the City would verify that all lighting associated with the proposed warehousing/industrial development, surface parking, and landscaping would be directed downward and away from all adjoining uses as part of the Site Plan and Design Review Process. Conformance with Municipal Code Section 9147.1 would reduce the project's operational lighting impacts to less than significant levels.

Vehicle headlights entering and exiting the project's driveways at East 223rd Street could also result in increased lighting in the project vicinity. However, there are no light sensitive uses (i.e., residential uses) within the project vicinity. Further, the proposed truck loading docks would be provided along the southern perimeters of Buildings A and B, and along the northern perimeter of Building C (all of which would be screened from public view) in order ensure vehicle headlight impacts are internal to the project site and do not result in spillover to off-site properties. As a result, vehicle headlights are not anticipated to result in a significant increase in lighting conditions in the area.

The proposed project's exterior building materials would primarily be constructed of concrete tilt-up panels similar to other industrial building materials in the general area. Daytime glare as a result of these building materials would be similar to that already experienced in the general area. Further, the project's landscaped frontage along East 223rd Street would shield public views from potential sources of daytime glare. The project would also be subject to special site plan and design review as required by the City's Design Overlay Review process. This regulatory procedure would review the project's building materials to ensure neighboring uses are not exposed to substantial daytime glare. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

4.2 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 Department 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:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
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?				✓

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. The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[1] No farmland exists within the site vicinity. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[1] California Department of Conservation, *California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed January 31, 2020.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is zoned Manufacturing, Heavy with a Design Overlay (MH-D), and is not covered under an existing Williamson Act contract.[2] Thus, project implementation would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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. The project site is zoned MH-D and is not occupied or used for forest land or timberland. Further, project implementation would not conflict with existing zoning or result in the rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Refer to Response 4.2(c). No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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. Refer to Responses 4.2(a) through 4.2(d). No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[2] California Department of Conservation, *Los Angeles County Williamson Act FY 2015/2016 Map*, updated 2016.

4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			✓	
c. Expose sensitive receptors to substantial pollutant concentrations?			✓	
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓	

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). Project consistency with the SCAQMD's *2016 Air Quality Management Plan for the South Coast Air Basin* (2016 AQMP) is achieved when the project is found to be consistent with the goals, objectives, and assumptions set forth in the 2016 AQMP, which are designed to achieve Federal and State air quality standards. According to the SCAQMD's *1993 CEQA Air Quality Handbook*, in order to determine consistency with the 2016 AQMP, two main criteria must be addressed:

CRITERION 1:

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

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

Since the consistency criteria identified under the first criterion pertains to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Response 4.3(c), localized concentrations of carbon monoxide (CO), nitrogen oxides (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would be less than significant during project construction and operations. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations.[1]

[1] Because reactive organic gases (ROGs) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

b) *Would the project cause or contribute to new air quality violations?*

As discussed in Response 4.3(b), the proposed project would result in emissions that are below the SCAQMD thresholds. Therefore, the project would not have the potential to cause or contribute to new air quality violations.

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

The proposed project would result in less than significant impacts with regard to localized concentrations during project construction and operations; refer to Response 4.3(c). As such, the project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

CRITERION 2:

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

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

In the case of the 2016 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the *Carson General Plan* (General Plan), SCAG's *Growth Management Chapter of the Regional Comprehensive Plan* (RCP), and SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). The RTP/SCS also provides socioeconomic forecast projections of regional population growth.

As noted in Section 4.11, *Land Use and Planning*, the project would require a General Plan Amendment to change the site's land use designation from Business Park (BP) to Light Industrial (LI) to ensure consistency between the proposed warehousing/industrial development and the General Plan. The LI designation is intended to provide for a wide variety of industrial uses and to limit those involving hazardous or nuisance effects. This designation typically includes manufacturing, research and development, wholesaling, and warehousing, with a very limited amount of supportive retail and services uses. The proposed warehousing/industrial development would be utilized for the Warehouse and Manufacturing Option uses with offices and truck loading docks. Thus, with approval of the project's General Plan Amendment, the project would not conflict with the intent of the proposed LI designation.

Further, the project site is zoned Manufacturing, Heavy with a Design Overlay (MH-D). The MH zone is created primarily for industrial uses acceptable within the community, with provisions for controlling any adverse effects upon the more sensitive areas of the City. The Design Overlay allows for special site plan and design review for selected areas throughout the City. As analyzed in Section 4.11, the project would require approval of a Zone Change to modify the project site's zoning from MH-D to Manufacturing, Light with a Design Overlay (ML-D). The ML zone is created primarily for small and medium size industrial uses which are not likely to have adverse effects upon each other or upon neighboring residential and commercial zones. Thus, with approval of the project's Zone Change, the project would not conflict with the ML-D zone.

As explained in Section 4.14, *Population and Housing*, the project would employ up to 124 full-time employees.[2] Based on a "worst case" scenario of 124 full-time employees relocating to the City of Carson and the City's average household size of 3.61, project implementation would result in a population increase of approximately 448 persons.[3] Therefore, population growth associated with the project would represent only a 0.48 percent increase over the City's 2019 population of 93,604 persons.[4] Thus, the project would not conflict with population, housing, and employment growth projections in the 2016 AQMP, General Plan, RCP, and RTP/SCS.

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

The proposed project would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in Responses 4.3(b) and 4.3(c). As such, the proposed project would achieve this 2016 AQMP consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth in the AQMP?

The proposed development options would include warehouse/ industrial facility that would be utilized for distribution, warehousing, and manufacturing uses with offices and truck loading docks. With the approval of the project's General Plan Amendment, the project would be consistent with the General Plan LI designation. Thus, the project would not conflict with land use planning strategies set forth in the 2016 AQMP. As such, the proposed project would achieve this 2016 AQMP consistency criterion.

In conclusion, the determination of project consistency with the 2016 AQMP is primarily concerned with the long-term influence of a project on Basin air quality. The project would not result in long-term impacts on the region's ability to meet State and Federal air quality standards. As discussed above, the proposed project would not conflict with the goals and policies of the 2016 AQMP, General Plan, RCP, and RTP/SCS. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact.

CRITERIA POLLUTANTS

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

2 124 full-time employees were calculated based on a worst-case average of 18.49 employees per acre of light manufacturing uses. Source: The Natelson Company, Inc., *Employment Density Study Summary Report*, Table 4A (Derivation of Square Feet per Employee Based On: Average Employees per Acre, Average FAR, Los Angeles County), October 31, 2001.

3 California Department of Finance Demographic Research Unit, Report E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2019, with 2010 Benchmark, *Sacramento, California*, May 1, 2019.

4 Ibid.

Ozone (O_3). O_3 occurs in two layers of the atmosphere. The layer surrounding the Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" O_3 layer) extends upward from about ten to 30 miles and protects life on Earth from the sun's harmful ultraviolet rays. "Bad" O_3 is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen dioxide (NO_X), and sunlight to form; therefore, VOCs and NO_X are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these O_3 precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the Earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2). NO_X are a family of highly reactive gases that are a primary precursor to the formation of ground-level O_3 and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the Statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards. On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for Statewide annual ambient particulate matter air quality standards. These standards were revised and established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO_2). SO_2 is a colorless, irritating gas with a rotten egg smell that is primarily formed by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with sulfur oxides (SO_X). Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are criteria pollutants since they are precursors to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

Reactive Organic Gases (ROG). Similar to VOC, ROG are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_x react in the presence of sunlight. ROGs are criteria pollutants since they are precursors to O_3, which is a criteria pollutant.

SHORT-TERM CONSTRUCTION EMISSIONS

Construction activities would be the same for the Warehouse and Manufacturing Option and Warehouse Only Option; thus, the short-term construction emissions analysis below is applicable to both options.

The project involves construction activities associated with demolition, grading, building construction, paving, and architectural coating. The project would be constructed over approximately 13 months beginning in October 2020. Construction activities would require approximately 27,400 cubic yards of soil to be imported during the grading phase; refer to Section 2.0, *Project Description*. Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model version 2016.3.2 (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. The analysis of daily construction emissions has been prepared utilizing CalEEMod. Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for the CalEEMod outputs and results. Table 4.3-1, *Construction Emissions*, presents the anticipated daily short-term construction emissions.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, trenching, and construction is expected to be short-term and would cease upon project completion. Most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Table 4.3-1
Construction Emissions

Emissions Source	Pollutant (pounds/day)[1,2]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Emissions[2,3,4]						
Year 1	3.39	33.26	22.36	0.04	1.83	1.59
Year 2	64.58	68.68	52.87	0.11	8.73	4.87
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes: ROG = reactive organic gases; NO_X = nitrous oxides; CO = carbon monoxide; SO_2 = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

1. Emissions were calculated using CalEEMod version 2016.3.2 and EMFAC 2017, as recommended by the SCAQMD and CARB.
2. The reduction/credits for construction emissions are based on "mitigation" included in CalEEMod and are required by the SCAQMD Rules. The "mitigation" applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. The emissions results in this table represent the "mitigated" emissions shown in Appendix A.
3. The planned construction buildout, timing, and emissions would be the same for the Warehouse and Manufacturing Option and Warehouse Only Option.
4. The project's 13-month construction schedule would occur over two calendar years.

Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for assumptions used in this analysis.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and sulfur oxides (SO_X) combining with ammonia. $PM_{2.5}$ components from material in the Earth's crust, such as dust, are also present, with the amount varying in different locations.

The project would implement all required SCAQMD dust control techniques (i.e., daily watering), limitations on construction hours, and adhere to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track out requirements, etc.), to reduce PM_{10} and $PM_{2.5}$ concentrations. As depicted in Table 4.3-1, total PM_{10} and $PM_{2.5}$ emissions would not exceed SCAQMD thresholds during construction. Thus, construction air quality impacts would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 4.3-1, construction equipment and worker vehicle exhaust emissions would not exceed the established SCAQMD threshold for all criteria pollutants. Therefore, impacts in this regard would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the SCAQMD, the ROG emissions associated with paving and architectural coating have been quantified with the CalEEMod model. ROG emissions associated with the proposed project would be less than significant; refer to Table 4.3-1.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are human health hazards when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact in this regard.

LONG-TERM OPERATIONAL EMISSIONS

Long-term air quality impacts would consist of mobile source emissions generated from project-related traffic, and emissions from stationary area and energy sources. Emissions associated with each of these sources were calculated and are discussed below.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using the EMission FACtor model (EMFAC2017) and CalEEMod. The project is anticipated to include either including warehouse uses or warehouse with manufacturing uses. According to *the Panattoni Project Traffic Impact Analysis* prepared by Ganddini Group, Inc. (dated June 3, 2020), the Warehouse and Manufacturing Option would generate approximately 788 trips per day (i.e., approximately 622 car trips and 166 truck trips), and the Warehouse Only Option is projected to generate a total of approximately 509 trips per day (i.e., approximately 405 car trips and 104 truck trips). Furthermore, according to the *Panattoni Warehouse Project: Vehicle Miles Traveled Analysis Draft Memorandum* (VMT Analysis) by Fehr & Peers (dated May 19, 2020), the Warehouse and Manufacturing Option would generate approximately 5,681 vehicle miles traveled (VMT) per day (i.e., approximately 2,068,719 miles per year[5]), and the Warehouse Only Option is projected to generate approximately

5 This number may be slightly off due to rounding that occurs in the CalEEMod calculations. Additionally, CalEEMod assumes a total of 364 days in a year when it calculates the total annual VMT.

4,906 VMT per day (i.e., approximately 1,785,784 miles per year[6]); refer to Appendix F, *Traffic Impact Analysis and VMT Analysis*. Table 4.3-2, *Long-Term Air Emissions (Warehouse Only Option)*, presents the anticipated mobile source emissions for the warehouse only option and Table 4.3-3, *Long-Term Air Emissions (Warehouse and Manufacturing Option)* presents the anticipated mobile source emissions for the warehouse plus manufacturing option.

Table 4.3-2
Long-Term Air Emissions (Warehouse Only Option)

Emissions Source	Pollutant (pounds/day)[1]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project Summer Emissions						
Area	6.66	<0.01	0.07	<0.01	<0.01	<0.01
Energy	0.11	1.04	0.87	<0.01	0.08	0.08
Mobile	1.33	2.88	14.66	0.04	3.83	1.05
Total SummerEmissions[2]	***8.10***	***3.92***	***15.60***	***0.05***	***3.91***	***1.13***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Is Threshold Exceeded? (Significant Impact?)	***No***	***No***	***No***	***No***	***No***	***No***
Project Winter Emissions						
Area	6.66	<0.01	0.07	<0.01	<0.01	<0.01
Energy	0.11	1.04	0.87	<0.01	0.08	0.08
Mobile	1.36	3.06	14.01	0.04	3.83	1.13
Total Winter Emissions[3]	***8.13***	***4.09***	***14.95***	***0.04***	***3.91***	***1.21***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Is Threshold Exceeded? (Significant Impact?)	***No***	***No***	***No***	***No***	***No***	***No***

Notes:

1. Emissions were calculated using CalEEMod version 2016.3.2 and EMFAC2017, as recommended by the SCAQMD and CARB.
2. The numbers may be slightly off due to rounding.

Refer to Appendix A, *Air Quality/Greenhouse Gas /Energy Data*, for assumptions used in this analysis.

6 Ibid.

Table 4.3-3
Long-Term Air Emissions (Warehouse and Manufacturing Option)

Emissions Source	Pollutant (pounds/day)[1]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project Summer Emissions						
Area	6.66	<0.01	0.07	<0.01	<0.01	<0.01
Energy	0.01	1.04	0.87	<0.01	0.08	0.08
Mobile	1.91	3.56	17.92	0.05	4.43	1.22
Total SummerEmissions[2]	***8.58***	***4.60***	***18.86***	***0.05***	***4.51***	***1.30***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Is Threshold Exceeded? (Significant Impact?)	***No***	***No***	***No***	***No***	***No***	***No***
Project Winter Emissions						
Area	6.66	<0.01	0.07	<0.01	<0.01	<0.01
Energy	0.11	1.04	0.87	<0.01	0.08	0.08
Mobile	1.97	3.77	17.34	0.05	4.43	1.22
Total Winter Emissions[3]	***8.74***	***4.81***	***18.28***	***0.05***	***4.51***	***1.30***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Is Threshold Exceeded? (Significant Impact?)	***No***	***No***	***No***	***No***	***No***	***No***

Notes:

1. Emissions were calculated using CalEEMod version 2016.3.2 and EMFAC2017, as recommended by the SCAQMD and CARB.
2. The numbers may be slightly off due to rounding.

Refer to Appendix A, *Air Quality/Greenhouse Gas /Energy Data*, for assumptions used in this analysis.

Area Source Emissions

Area source emissions would be generated due to an increased demand for natural gas associated with the development of the proposed project; refer to Table 4.3-2 and Table 4.3-3. The primary use of natural gas by the project would be for consumer products, architectural coating, and landscaping.

Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas usage associated with the proposed project; refer to Table 4.3-2 and Table 4.3-3. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics.

Total Operational Emissions

As shown Table 4.3-2 and Table 4.3-3, the total operational mitigated emissions for the Warehouse Only Option and Warehouse and Manufacturing Option would not exceed established SCAQMD thresholds during summer or winter. Impacts in this regard would be less than significant.

AIR QUALITY HEALTH IMPACTS

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O_3 precursors, VOCs and NO_x, affect air quality on a regional scale. Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations and,

as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants during construction would have negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the SCAQMD (April 6, 2015) for the *Sierra Club vs. County of Fresno*, the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD) (April 13, 2015) for the *Sierra Club vs. County of Fresno*, SJVAPCD acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD further states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O_3 levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O_3-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. Thus, as the project would not exceed SCAQMD thresholds for construction and operational air emissions, the project would have a less than significant impact for air quality health impacts.

CUMULATIVE SHORT-TERM CONSTRUCTION IMPACTS

With respect to the proposed project's construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2016 AQMP pursuant to Federal Clean Air Act mandates. As such, the proposed project would comply with SCAQMD Rule 403 requirements and implement all feasible SCAQMD rules to reduce construction air emissions to the extent feasible. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. In addition, the proposed project would comply with adopted 2016 AQMP emissions control measures. Pursuant to SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include related projects.

As discussed above, the project's short-term construction emissions would be below the SCAQMD thresholds and would result in a less than significant impact. Thus, it can be reasonably inferred that the project's construction emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants in the Basin. A less than significant impact would occur in this regard.

CUMULATIVE LONG-TERM OPERATIONAL IMPACTS

As discussed, the Warehouse Only Option and Warehouse and Manufacturing Option would not result in long-term operational air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Emission reduction technology, strategies, and plans are constantly being developed. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, no cumulative operational impacts associated with implementation of the proposed project would result.

Mitigation Measures: No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

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

The closest existing sensitive receptors are residences located approximately 1,509 feet northwest of proposed construction areas. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds for construction and operations impacts (stationary sources only). In addition, the closest industrial receptors are adjacent to the west, south, and east of the project site.

LOCALIZED SIGNIFICANCE THRESHOLDS

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The project is located within Source Receptor Area (SRA) 4, South Los Angeles County Coastal.

Construction LST

Construction activities would be the same for the Warehouse and Manufacturing Option and Warehouse Only Option; thus, the construction LST emissions analysis below is applicable to both options. The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day. SCAQMD provides LST thresholds for one-, two-, and five-acre site disturbance areas; SCAQMD does not provide LST thresholds for projects over five acres. The 14.3-acre project site would be graded over an approximate 44-day period. In order to properly grade the project site, multiple passes with grading equipment would be required. As a result, the cumulative distance traversed by the grading equipment would equate to approximately 110 acres. Thus, for the purpose of this analysis, it is assumed that 2.5-acres would be graded per day (110 acres divided by 44 days). To be conservative, LST Thresholds for two-acre disturbance area were utilized for this analysis. Although the closest receptors are industrial uses adjacent (within 25 meters) to the east, south, and west of the project site, this LST analysis conservatively characterizes these uses as sensitive since workers at these sites may be potentially affected by air pollutant emissions generated during on-site construction activities.[7] LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest "sensitive" uses are a within 25 meters to the east, south, and west of project site, the LST values for 25 meters were used.

Table 4.3-4, *Localized Significance of Emissions*, shows the localized unmitigated and mitigated construction-related emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ compared to the LSTs for SRA 4. It is noted that the localized emissions presented in Table 4.3-4 are less than those in Table 4.3-1 because localized emissions include only on-site emissions (i.e., from construction equipment and fugitive dust), and do not include off-site emissions (i.e., from hauling activities).

[7] *"…LSTs based on shorter averaging periods, such as the NO2 and CO LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours (page 42)."* South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised July 2008.

As shown in Table 4.3-4, the project's localized construction emissions would not exceed the LSTs for SRA 4. Therefore, localized significance impacts from construction would be less than significant.

Table 4.3-4
Localized Significance of Emissions

Source	Pollutant (pounds/day)[3]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction (Grading/Excavation Phase)				
On-Site Emissions[1]	46.14	29.54	10.67	5.43
On-Site Emissions with SCAQMD Rules Applied[1,2]	46.14	29.87	5.89	3.45
Localized Significance Threshold[2]	82	842	7	5
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:

1. The grading/excavation phase emissions are presented as the worst-case scenario for NOx, CO, PM_{10}, and $PM_{2.5}$.
2. The reduction/credits for construction emissions applied in CalEEMod are based on the application of dust control techniques as required by SCAQMD Rule 403. The dust control techniques include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stockpiles with tarps; water all haul roads three times daily; and limit speeds on unpaved roads to 15 miles per hour.
3. The Localized Significance Threshold was determined using Appendix C of the SCAQMD Final Localized Significant Threshold Methodology guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (2.5 acre; therefore the 2-acre threshold was used) and the source receptor area (SRA 4).

Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for assumptions used in this analysis.

Operational LST

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer facilities). Since the proposed project is a warehouse, the operational phase LST protocol was applied. If emissions exceed the applicable operational LSTs for the project site, then additional dispersion modeling would need to be conducted to determine if there is an actual exceedance of the ambient air quality standards.

Although the project site is approximately 14 acres, the five-acre operational LST was utilized to provide a conservative estimate of operational LST impacts. Applicable localized thresholds from the SCAQMD's mass-rate LST lookup tables for a five-acre project site within SRA 4 are as follows:

- NO_X: 123 pounds per day;
- CO: 1,530 pounds per day;
- PM_{10}: 4 pounds per day; and/or
- $PM_{2.5}$: 2 pounds per day.

As discussed above, the project development options would generate similar construction emissions and long-term air emissions, except for differing mobile emissions. As the operational LST analysis looks at the area source emissions, the two development would have similar impacts and thus the analysis below would be applicable to both. Table 4.3-5, *Localized Significance of Operational Emissions*, shows the calculated emissions for the project's operational activities (both development options) compared to the applicable LSTs.

Table 4.3-5
Localized Significance of Operational Emissions

Source	Pollutant (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Operational				
Area Source Emissions	6.66	0.07	0.00	0.00
Localized Significance Threshold[1]	123	1,530	4	2
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:

1. The Localized Significance Threshold was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the total acreage for operational (the 5-acre threshold was used), the distance to sensitive receptors (25 meters), and the source receptor area (SRA 4).

Refer to Appendix A for assumptions used in this analysis.

As shown in Table 4.3-5, the project's operational area source emissions would be negligible and would not exceed the LSTs for SRA 4. Therefore, localized significance impacts from operations would be less than significant.

CARBON MONOXIDE HOTSPOTS

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (or two percent) for any intersection with an existing level of service LOS D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections.

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on the nation's urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A detailed CO analysis was conducted in the *Federal Attainment Plan for Carbon Monoxide* (CO Plan) for the SCAQMD's *2003 Air Quality Management Plan*.[8] The locations selected for microscale modeling in the CO Plan are worst-case intersections in the Basin and would likely experience the highest CO concentrations. Thus, CO analysis within the CO Plan is utilized in a comparison to the proposed project, since it represents a worst-case scenario with heavy traffic volumes within the Basin.

Of these locations, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles experienced the highest CO concentration (4.6 parts per million [ppm]), which is well below the 35-ppm 1-hour CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots

[8] The CO Plan was not updated as part of the 2016 AQMP.

would not be experienced at any intersections near the project site due to an increase in volume of traffic of up to 788 daily trips (Warehouse and Manufacturing Option) that would occur as a result of project implementation. Therefore, impacts would be less than significant in this regard.

AIR QUALITY HEALTH IMPACTS

As evaluated above, the project's air emissions would not exceed the SCAQMD's LST thresholds or health risk thresholds, and CO hotpots would not occur as a result of the proposed project. Therefore, the project would not exceed the most stringent applicable Federal or State ambient air quality standards for emissions of CO, NO_X, PM_{10}, or $PM_{2.5}$. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (i.e., children and the elderly) are protected. In other words, the ambient air quality standards are purposefully set in a stringent manner to protect children, elderly, and those with existing respiratory problems. Thus, air quality health impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project involves the construction of three concrete tilt-up light industrial buildings and does not include any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would reduce detectable odors from heavy-duty equipment exhaust. As such, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
b. Have a 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?				✓
c. Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
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?			✓	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
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?				✓

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. According to the General Plan EIR, the City of Carson does not support any sensitive or special status species. The project site is located within an urbanized, industrial area of the City. Due to past development as a former polyvinyl chloride plant, demolition activities, and ongoing remediation, the site is heavily disturbed and mostly consists of developed, bare ground, and non-native habitat. Thus, project implementation would not adversely affect any candidate, sensitive, or special status species. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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. According to the General Plan EIR, riparian habitat within the City is limited to the Carson Harbor Village Mobile Home Park, located at the northwest portion of the City approximately 3.5-mile northwest of the project site. As discussed, the project site is heavily disturbed and is located within an urbanized area of the City with no riparian habitat or sensitive natural communities. Thus, project implementation would not adversely affect riparian habitat or other sensitive natural communities. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

c) Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. According to the General Plan EIR, wetland habitat within the City is limited to the 17-acre wetland within Harbor Village Mobile Home Park, located at the northwest portion of the City approximately 3.5-mile northwest of the project site. As discussed, the project site is heavily disturbed and consists mostly of developed, bare ground, and non-native habitat. The site does not support State or Federally protected wetlands. Thus, project implementation would not adversely affect State or Federally protected wetlands. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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?

Less Than Significant Impact. Based on the lack of suitable habitat within the project site, project implementation would not interfere with the movement of any native resident, migratory fish, or wildlife species. The project site is fenced and does not function as a wildlife corridor or nursery site. Notwithstanding, the existing trees concentrated within the northwestern corner of the project site have the potential to provide suitable nesting habitat for birds. The Migratory Bird Treaty Act (MBTA) governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, or nests. Mandatory compliance with the MBTA would reduce the project's potential construction-related impacts to migratory birds. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. Municipal Code Chapter 9, *City Tree Preservation and Protection*, preserves and protects the public street trees within Carson that are of aesthetic importance and provides for the replacement of trees in order to maintain the community's natural environment. Project development would require the removal of all existing on-site trees, shrubs, and grasses. However, no trees proposed for removal are located within public right-of-way. As shown on Exhibit 2-5, *Conceptual Landscape Plan*, the project proposes to plant 58 new street trees along the project frontage on East 223rd Street, within public right-of-way. The street trees would be 24-inch box size London plane trees, Bailey acacia, and Crape Myrtle. Proposed street trees would meet the planting specifications detailed in Municipal Code Sections 3905, *Planting*, 3907, *Planting and Staking*, and 3908, *Planting Specifications*. Pursuant to Municipal Code Chapter 9, the Applicant would be required to obtain a Tree Planting Permit prior to planting of any trees within the City's right-of-way to ensure the proposed street trees comply with the City's planning specifications and Parkway Tree Master Plan. Less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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. According to the General Plan EIR, no areas within the City are located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Thus, project implementation would not conflict with the provisions of any such plans. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

This page intentionally left blank.

4.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?				✓
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		✓		
c. Disturb any human remains, including those interred outside of formal cemeteries?			✓	

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact. The project site is mostly disturbed and vacant; however, the southern portion is developed with an Enhanced in Situ Bioremediation Compound building. According to the General Plan EIR, only two historic resources exist within the City: the initial United States Air Meet located near 18501 South Wilmington Avenue, and the 170-year old Dominguez Rancho Adobe home located at 18127 Alameda Street (within Carson's Sphere of Influence). These historic resources are not located on-site or near the project site and would not be disturbed by project constructions or operations. Therefore, the project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines, and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated. Based on the project's proposed General Plan Amendment, the project is subject to Senate Bill 18 (SB 18), which requires that cities and counties notify and consult with California Native American Tribes about proposed local land use planning decisions for the purpose of protecting traditional tribal cultural sites. In compliance with SB 18, the City sent notification letters to applicable Native American tribes informing them of the project on January 30, 2020.

As detailed in the General Plan EIR, only one archaeological site or resource exist within the City: the Suangna Village, approximately 1.1 mile from the project site. The *Geotechnical Investigation, Three Proposed Warehouses, 2112 East 223rd Street, Carson, California, for Panattoni Development Company, Inc.* (Geotechnical Investigation) prepared for the project determined that the project site is underlain by artificial fill soils between depths of 1.5 to 6.5 feet below ground surface (bgs); refer to Appendix B, *Geotechnical Investigation*. Native alluvium soil is encountered below the artificial fill soils. The Geotechnical Study recommends that the existing soils within the building pad areas should be overexcavated to a depth of 8 feet below existing grade and to a depth of 8 feet below proposed pad grade, whichever is greater. Thus, although the project site is not located within a general area of sensitivity for archaeological resources, project excavation would encounter native (alluvium) soils which have the potential to support unknown buried archaeological resources. In the unlikely event that archaeological resources are encountered during project construction, Mitigation Measure CUL-1 would require all project construction efforts to halt until an archaeologist examines the site, identifies the archaeological significance of the find, and recommends a course of action. With

implementation of Mitigation Measure CUL-1, the project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines, and impacts would be reduced to less than significant levels.

Mitigation Measures:

CUL-1 Unanticipated Discovery of Cultural Resources. If previously unidentified cultural resources are encountered during ground-disturbing activities, work in the immediate area shall halt and a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology, shall be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted to mitigate any significant impacts. In the event that an identified cultural resource is of Native American origin, the qualified archaeologist shall consult with the project owner and City of Carson to implement Native American consultation procedures. Construction shall not resume until the qualified archaeologist states in writing that the proposed construction activities would not significantly damage any archaeological resources.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. Due to the level of disturbance on the project site and in the site vicinity, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or ground-disturbing activities. Nonetheless, if human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5 through 7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission and consultation with the individual identified by the Native American Heritage Commission to be the most likely descendant. If human remains are found during excavation, excavation must stop near the find and any area that is reasonably suspected to overlay adjacent remains until the County Coroner has been called out, the remains have been investigated, and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with the aforementioned regulations, impacts related to the disturbance of human remains are less than significant.

Mitigation Measures: No mitigation is required.

4.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			✓	
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			✓	

SENATE BILL 100

Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, 60 percent by December 31, 2030, and 100 percent by December 31, 2045. The bill requires the California Public Utilities Commission (CPUC), California Energy Commission (CEC), State board, and all other State agencies to incorporate that policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and State board to utilize programs authorized under existing statutes to achieve that policy and, as part of a public process, issue a joint report to the Legislature by January 1, 2021, and every four years thereafter, that includes specified information relating to the implementation of the policy.

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS (TITLE 24)

The 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6), commonly referred to as "Title 24," became effective on January 1, 2020. In general, 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. Under 2019 Title 24 standards, nonresidential buildings will use about 30 percent less energy, mainly due to lighting upgrades, when compared to 2016 Title 24 standards.[1] The standards offer developers better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN)

California Green Building Standards (CALGreen) is the first-in-the-nation mandatory green buildings standards code. The California Building Standards Commission developed the green building standards in an effort to meet the goals of California's landmark initiative Assembly Bill (AB) 32, which established a comprehensive program of cost-effective reductions of greenhouse gases (GHGs) to 1990 levels by 2020. CALGreen was developed to (1) reduce GHGs from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the environmental directives of the administration. The 2019 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as CALGreen,

[1] California Energy Commission, *2019 Building Energy Efficiency* Standards, https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf, accessed April 10, 2020.

went into effect on January 1, 2020. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies (e.g. lighting, heating/ventilation and air conditioning [HVAC], and plumbing fixtures), divert construction waste from landfills, and incorporate electric vehicles charging infrastructure. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.[2]

CITY OF CARSON ENERGY EFFICIENCY CLIMATE ACTION PLAN

The *City of Carson 2015 Energy Efficiency Climate Action Plan* (EECAP) includes goals and policies to incorporate environmental responsibility into its daily management of its community and municipal operations. The EECAP includes a list of emission reduction actions organized by sector and a time frame for implementation. The EECAP classifies the reduction targets into two separate categories, community and municipal emissions. Energy efficiency strategies are outlined in the EECAP with goals and measures defined for each of the two categories.

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

Less Than Significant Impact.

Both the Warehouse and Manufacturing Option and Warehouse Only Option would require similar energy consumption, as both options would require the same building footprint and construction equipment. However, based on the *Panattoni Project Traffic Impact Analysis* (Traffic Impact Analysis) prepared by Ganddini Group, Inc. (dated June 3, 2020), the Warehouse and Manufacturing Option is projected to generate a total of approximately 788 trips per day and the Warehouse Only Option is projected to generate a total of approximately 509 trips per day. The following analysis presents the worst-case scenario of 788 trips per day that would be expected under the Warehouse and Manufacturing Option.

This analysis focuses on three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips associated with project construction and operations. The analysis of operational electricity is based on the California Emissions Estimator Model version 2016.3.2 (CalEEMod) modeling results for the project. The project's estimated electricity consumption is based primarily on CalEEMod's default settings for Los Angeles County, and consumption factors provided by Southern California Edison (SCE) and the Southern California Gas Company (SoCalGas), who are the electricity and natural gas providers for the City and the project site. The results of the CalEEMod modeling are included in Appendix A, *Air Quality/Greenhouse Gas/Energy Data*. The amount of operational fuel consumption was estimated using the California Air Resources Board (CARB) EMissions FACtor 2017 (EMFAC2017) computer program which provides projections for typical daily fuel (i.e. diesel and gasoline) usage in Los Angeles County, and the project's annual vehicle miles traveled (VMT) from the VMT Analysis; refer to Appendix F, *Traffic Impact Analysis and VMT Analysis*. The estimated construction fuel consumption is based on the project's construction equipment list timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips.

The project's estimated energy consumption is summarized in Table 4.6-1, *Project and Countywide Energy Consumption*. As shown in Table 4.6-1, the project's electricity usage would constitute an approximate 0.0045 percent increase over Los Angeles County's typical annual electricity and an approximate 0.0080 percent increase over Los Angeles County's typical annual natural gas consumption. The project's construction and operational vehicle fuel consumption would increase Los Angeles County's consumption by 0.0085 percent and 0.0030 percent, respectively.

[2] U.S. Green Building Council, *Green Building Costs and Savings*, https://www.usgbc.org/articles/green-building-costs-and-savings, accessed April 10, 2020.

Table 4.6-1
Project and Countywide Energy Consumption

Energy Type	Project Annual Energy Consumption[1]	Los Angeles County Annual Energy Consumption[2]	Percentage Increase Countywide[2]
Electricity Consumption	3,063 MWh	68,486,000 MWh	0.0045%
Natural Gas Consumption	234,656 therms	2,921,000,000 therms	0.0080%
Fuel Consumption			
• Construction Fuel Consumption[3]	45,291 gallons	533,800,838 gallons	0.0085%
• Operational Automotive Fuel Consumption[3]	118,777 gallons	3,975,480,911 gallons	0.0030%

Notes:

1. As modeled in CalEEMod version 2016.3.2.
2. The project increases in electricity and natural gas consumption are compared to the total consumption in Los Angeles County in 2018. The project increases in automotive fuel consumption are compared with the projected Countywide fuel consumption in 2020.
   Los Angeles County electricity consumption data source: California Energy Commission, *Electricity Consumption by County*, http://www.ecdms. energy.ca.gov/elecbycounty.aspx, accessed April 10, 2020.
   Los Angeles County natural gas consumption data source: California Energy Commission, *Gas Consumption by County*, http://www.ecdms.energy. ca.gov/gasbycounty.aspx, accessed April 10, 2020.
3. Project fuel consumption calculated based on CalEEMod results. Countywide fuel consumption is from the California Air Resources Board EMFAC2017 model. The Operational Automotive Fuel Consumption is based on the Warehouse and Manufacturing Option as it would generate the most trips per day and vehicle miles traveled (VMT) when compared to the Warehouse Only Option.

Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for assumptions used in this analysis.

Construction Energy Consumption

Project construction would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during demolition, grading, building construction, paving, and architectural coating. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that heavy-duty diesel equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (EPA) and CARB engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Reductions in energy inputs for construction materials can be achieved by selecting green building materials composed of recycled materials that require less energy to produce than non-recycled materials.[3] The integration of green building materials can help reduce environmental impacts associated with the extraction, transport, processing, fabrication, installation, reuse, recycling, and disposal of these building industry source materials.[4] The project-related incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. As indicated in Table 4.6-1, the project's fuel consumption from construction would be approximately 45,291 gallons, which would increase fuel use in the County by 0.0085 percent.

[3] California Department of Resources Recycling and Recovery, *Green Building Materials*, https://www.calrecycle.ca.gov/greenbuilding/materials#Material, accessed April 15, 2020.

[4] Ibid.

As such, construction would have a nominal effect on the local and regional energy supplies. It is noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. As such, a less than significant impact would occur in this regard.

Operational Energy Consumption

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration (NTSA) is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. Table 4.6-1 provides an estimate of the daily fuel consumed by vehicles traveling to and from the project site. As indicated in Table 4.6-1, project operations are estimated to consume approximately 118,777 gallons of fuel per year, which would increase the Los Angeles County's automotive fuel consumption by 0.0030 percent. The project would not result in any unusual characteristics that would result in excessive operational fuel consumption associated with vehicular travel. Fuel consumption associated with project-related vehicle trips would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. As such, a less than significant impact would occur in this regard.

Building Energy Demand

The project would consume energy for interior and exterior lighting, heating/ventilation and air conditioning (HVAC), refrigeration, electronics systems, appliances, and security systems, among other common light industrial features. The 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, 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. As indicated in Table 4.6-1, operational energy consumption would represent an approximate 0.0045 percent increase in electricity consumption over the current Countywide usage. Therefore, the project would not result in the inefficient, wasteful, or unnecessary consumption of building energy, and impacts in this regard would be less than significant.

As depicted in Table 4.6-1, operational energy consumption would represent an approximate 0.0045 percent increase in electricity consumption and a 0.0080 percent increase in natural gas consumption over the current Countywide usage. The project would adhere to all Federal, State, and local requirements for energy efficiency, including the Title 24 standards. Additionally, the project would not result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure. The project would not result in the inefficient, wasteful, or unnecessary consumption of building energy. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less than Significant Impact. The project would comply with all applicable goals and measures identified in the City's EECAP, as listed in Table 4.6-2, *Community-Oriented EECAP Strategies*. The EECAP contains energy efficient

goals and measures that would help implement energy efficient measures and would subsequently reduce GHG emissions within the City. Compliance with Title 24 and CALGreen standards would ensure the project incorporates energy efficient windows, insulation, lighting, ventilation systems, as well as water efficient fixtures and electric vehicles charging infrastructure. Adherence to the Title 24 energy requirements will ensure conformance with the State's goal of promoting energy and lighting efficiency, and the City's EECAP. Therefore, the proposed project would result in less than significant impacts associated with renewable energy or energy efficiency plans.

Table 4.6-2
Community-Oriented EECAP Strategies

Goal	Measure	Project Compliance
Goal 4: Increase Energy Efficiency in New Commercial Development	**Measure 2.1**: Encourage or Require Energy Efficiency Standards Exceeding Title 24	As the 2013 Title 24 standards went into effect on July 1, 2014, the 2015 EECAP utilized efficiency measures outlined in the 2013 Title standards. Since then, the 2016 Title 24 and 2019 Title 24 standards were adopted. The 2016 Title 24 standards, which took effect on January 1, 2017, were 5 percent more efficient than the 2013 Title 24 standards for non-residential construction. Further, the 2019 Title 24 standards, which took effect on January 1, 2020, uses 30 percent less energy than non-residential buildings built under the 2016 standards primarily due to more efficient lighting standards. Therefore, as the project would comply with 2019 Title 24 standards, the project would achieve an increased reduction in energy usage when compared to the 2013 Title 24 standards required by the EECAP Measure 2.1.
Goal 5: Increase Energy Efficiency through Water Efficiency	**Measure 5.1**: Promote or Require Water Efficiency through The Water Conservation Act of 2009 (SB X7-7) **Measure 5.2**: Promote WE Standards Exceeding SB X7-7	The project would comply with outdoor water conservation measures outlined per California water regulations (AB 1881) and local water efficient landscape ordinances.
Goal 6: Decrease Energy Demand through Reducing urban Heat Island Effect	**Measure 6.1:** Promote Tree Planting for Shading and Energy Efficiency **Measure 6.2:** Incentivize or Require Light-Reflecting Surfaces	Approximately 30,522 square feet of ornamental landscaping would be installed throughout the project site generally located along the project's frontage and internal drive aisles; refer to Exhibit 2-5, *Conceptual Landscape Plan*. Planting materials would include a variety of ornamental trees, including London plane tree, fern pine, Italian cypress, African sumac, Bailey acacia, Brisbane box trees, and crape myrtle. In addition, shrubs, groundcover, and shrub masses would be dispersed throughout the project site.

Sources:
City of Carson, *Energy Efficiency Climate Action Plan*, December 2015.
California Energy Commission, *2019 Building Energy Efficiency* Standards, https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf, accessed April 10, 2020.

Mitigation Measures: No mitigation is required.

This page intentionally left blank.

4.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) 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.				✓
2) Strong seismic ground shaking?			✓	
3) Seismic-related ground failure, including liquefaction?			✓	
4) Landslides?				✓
b. Result in substantial soil erosion or the loss of topsoil?			✓	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				✓
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			✓	
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?				✓
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		

This section is primarily based upon the *Geotechnical Investigation, Three Proposed Warehouses, 2112 East 223rd Street, Carson, California, for Panattoni Development Company, Inc*. (Geotechnical Investigation) prepared by Southern California Geotechnical Inc. (dated October 28, 2019); refer to Appendix B, *Geotechnical Investigation*.

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

1) 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.

No Impact. Southern California, including the project area, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years) and/or are in a State-designated Earthquake Fault Zone. According to the Geotechnical Investigation, the project site is not located within an Alquist-Priolo Earthquake Fault Zone, and no evidence of faulting was identified on-site. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

2) Strong seismic ground shaking?

Less Than Significant Impact. Southern California has numerous active seismic faults subjecting people to potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for people and structures, categorized either as primary or secondary hazards. Primary hazards are caused by the direct interaction of seismic energy with the ground; examples include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Secondary hazards are consequences of the shaking; examples include ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

According to the Geotechnical Investigation and California Geological Survey, nearby faults capable of producing significant ground motions include the Cherry-Hill Fault and the Palos Verdes Fault, located approximately 1.8 miles and 5.06 miles away, respectively. Based on the site's proximity to known active faults, ground shaking would be expected during the project's lifetime. According to the Geological Investigation, the project site would be subject to peak ground acceleration (PGA_M) of 0.63g. In conformance with the existing seismic design requirements of the California Building Standards Code and Municipal Code Section 8100, *Adoption of Building Code*, the project would be subject to the site-specific seismic design recommendations identified in the Geotechnical Investigation to minimize the potential for damage and major injury during a seismic event; refer to Geotechnical Investigation Section 6.1, *Seismic Design Considerations*. Following conformance with the site-specific seismic design recommendations identified in the Geotechnical Investigation, impacts related to seismic ground shaking would be less than significant.

Mitigation Measures: No mitigation is required.

3) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction and seismically-induced settlement or ground failure is generally related to strong seismic shaking events where the groundwater occurs at shallow depth (generally within 50 feet of the ground surface) or where lands are underlain by loose, cohesionless deposits. Liquefaction typically results in the loss of shear strength of a soil, which occurs due to the increase of pore water pressure caused by the rearrangement of soil particles induced by shaking or vibration. During liquefaction, soil strata behave similarly to a heavy liquid.

According to the California Geological Survey, *Earthquake Zones of Required Investigation, Long Beach Quadrangle*, the project site is located in a designated liquefaction hazard zone. As a result, the Geotechnical Investigation included a detailed liquefaction evaluation to determine the site-specific liquefaction potential. The results of the liquefaction analysis have identified potentially liquefiable soils at the site. Anticipated settlements of up to approximately one-inch are anticipated during a liquefaction-inducing seismic event. Based on the Geotechnical Investigation, the use of

shallow foundation system is considered feasible for the proposed project. The structural engineer would be required to verify the system to be designed to resist the effects of the anticipated differential settlements described above, to the extent that the structures would not catastrophically fail. Utility connections to the structure would also be designed to withstand the estimated differential settlements. It is noted that such system is typical for buildings of this type, where liquefiable soils are found similar to the project site. Further post-liquefaction damage that could occur within the buildings proposed would also be typical of similar buildings in the vicinity of the project site. Minor to moderate repairs, including re-leveling, restoration of utility connections, repair of damaged drywall and stucco, etc., would likely be required after occurrence of the liquefaction-induced settlements, similar to other developments in the project vicinity. Notwithstanding minor to moderate repairs that may be necessary (such as re-leveling, restoration of utility connections, repair of damaged drywall and stucco, etc.), it is considered feasible to support the proposed structures on the shallow foundations proposed to resist the effects of the anticipated differential settlements, to the extent that the structure would not fail. Based on the Geotechnical Investigation, the post-construction static settlements of the proposed structures are expected to be within tolerable limits. As such, with compliance with the recommendations presented in the Geotechnical Investigation to minimize the potential for damage, including liquefaction and liquefaction-induced settlement; refer to Geotechnical Investigation Section 6.1, *Seismic Design Considerations*. Following conformance with the site-specific seismic design recommendations identified in the Geotechnical Investigation, impacts pertaining to liquefaction and liquefaction-induced settlement would be less than significant.

Mitigation Measures: No mitigation is required.

4) Landslides?

No Impact. According to the General Plan EIR, no known landslide areas exist within the City. Further, the project site is generally flat, and project implementation would not create substantial slopes or features that would increase the landslide potential above existing conditions. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact.

CONSTRUCTION

Grading, earthwork, and landscape/hardscape installation activities associated with project construction could expose soils to potential short-term erosion by wind and water. According to the Geotechnical Investigation, the project site slopes downward away from the central portion at an estimated gradient of less than one percent. As the project site is generally flat, significant erosion by water is unlikely. All demolition and construction activities associated with the project would be required to implement Best Management Practices (BMPs) to reduce urban runoff; refer to Section 4.10, *Hydrology and Water Quality*. These BMPs would be included in a Stormwater Pollution Prevention Plan (SWPPP) as part of the required National Pollutant Discharge Elimination System (NPDES) General Construction Permit. Compliance with the General Construction Permit would minimize the potential of erosion and loss of topsoil at the project site during construction activities to a less than significant level.

OPERATIONS

According to Section 4.10, operations of the proposed project would not result in substantial soil erosion or the loss of topsoil, as the project site would not include any large areas of exposed soils. Any unpaved areas would be landscaped to minimize the potential for erosion or siltation on- or off-site; refer to Exhibit 2-5, *Conceptual Landscape Plan*. In addition, the proposed project would include operational BMPs in conformance with the Los Angeles County Department of Public Works (LACDPW) *2014 Low Impact Development (LID) Standards Manual* and Municipal Code Section 5809, *Storm Water Pollution Control Measures for New Development and Redevelopment Project* in order to

reduce short- and long-term water quality impacts. Compliance with the County's LID requirements and Municipal Code Section 5809 would reduce the project's operational impacts with regards to erosion or loss of topsoil to less than significant levels.

Mitigation Measures: No mitigation is required.

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?

No Impact. Refer to Responses 4.7(a)(3), 4.7(a)(4), and 4.7(d) for a discussion concerning liquefaction, landslides, and collapse (from expansive soils), respectively.

LATERAL SPREADING

The General Plan EIR defines lateral spreading as limited displacement ground failure, often associated with liquefaction. Lateral spreading is typically exemplified by the formation of vertical cracks on the surface of liquefied soils, and usually takes place on gently sloping ground or level ground with nearby free surface such as a drainage or stream channel. According to the Geotechnical Investigation, the potential for lateral spreading at the project site is considered low. No impacts are anticipated in this regard.

SUBSIDENCE

According to the Geotechnical Investigation, the project site is susceptible to 0.1-foot of subsidence as a result of construction. Given this nominal potential for subsidence of on-site soils, no impacts are anticipated in this regard.

Mitigation Measures: No mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils are those that undergo volume changes as moisture content fluctuates, swelling substantially when wet or shrinking (and potentially collapsing) when dry. Soil expansion can damage structures by cracking foundations, causing settlement and collapse, and distorting structural elements. According to the Geotechnical Investigation, near-surface soils are considered to have a "low" to "medium" expansion potential. The majority of the near-surface soils possess moisture contents well above the optimum moisture content for compaction. Significant air drying would be necessary of the on-site soils during grading activities prior to their re-use as compacted fill. Air drying or stabilization of the soils exposed during excavation is recommended as part of the Geotechnical Investigation prior to the placement and compaction of fill. With compliance with the recommendations presented in the Geotechnical Investigation (as required by California Building Standards Code and Municipal Code Section 8100, *Adoption of Building Code*), impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

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. No septic tanks or alternative wastewater systems would be constructed as part of the project. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact With Mitigation Incorporated. According to the General Plan EIR, there are no known paleontological resources or unique geologic features within the City. As a result, it is not expected that paleontological resources would be encountered during project construction. Nonetheless, in the unlikely event that paleontological resources are encountered during grading activities, Mitigation Measure GEO-1 would require all revised project construction activities to halt until a paleontologist identifies the paleontological significance of the find and recommends a course of action. Thus, following implementation of Mitigation Measure GEO-1, impacts would be less than significant.

Mitigation Measures:

GEO-1 If evidence of subsurface paleontological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Carson Community Development Director. With direction from the Community Development Director, a paleontologist certified by the County of Los Angeles shall evaluate the find prior to resuming grading in the immediate vicinity of the find. If warranted, the paleontologist shall prepare and complete a standard Paleontological Resources Mitigation Program for the salvage and curation of identified resources.

This page intentionally left blank.

4.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact.

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 420 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) per year.[1] Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of March 2020, the highest monthly average concentration of CO_2 in the atmosphere was recorded at 416 ppm.[2]

REGULATORY FRAMEWORK

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450

[1] California Air Resources Board, California Greenhouse Gas Emissions for 2000 to 2017, https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf, accessed April 10, 2020.

[2] Scripps Institution of Oceanography, Carbon Dioxide Concentration at Mauna Loa Observatory, https://scripps.ucsd.edu/programs/keelingcurve/, accessed April 10, 2020.

ppm carbon dioxide equivalent (CO_2e)[3] concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

State

Various Statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then the California Air Resources Board (CARB) should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Senate Bill 32. Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030.

CARB Scoping Plan. On December 11, 2008, CARB adopted the *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce GHG emissions by 174 million metric tons (MT), or approximately 30 percent, from the State's projected 2020 emissions level of 596 million MT CO_2e under a business as usual (BAU)[4] scenario. This is a reduction of 42 million MT CO_2e, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.

The Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. The measures described in the Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

[3] Carbon Dioxide Equivalent (CO2e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

[4] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions; refer to http://www.arb.ca.gov/cc/inventory/data/bau.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal."

In December 2017, CARB approved the *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. This update focuses on implementation of a 40 percent reduction in GHGs by 2030 compared to 1990 levels. To achieve this, the updated 2017 Scoping Plan draws on a decade of successful programs that addresses the major sources of climate changing gases in every sector of the economy.

Local

City of Carson Climate Action Plan

In December 2017, the City adopted the *City of Carson Climate Action Plan* (CAP). The CAP was created in partnership with the South Bay Cities Council of Governments and Southern California Edison (SCE) and was prepared to follow the guidance of California's *Long Term Energy Efficiency Strategic Plan*. The CAP identifies a comprehensive set of electricity-related energy efficiency targets, goals, policies, and actions to help the community and the City become more energy efficient. The CAP also provides policies and actions to assist with the implementation of energy efficiency strategies and summarizes the policies, benefits, implementation time frame, and responsible departments for implementing the components of each energy efficiency strategy. The CAP's energy reduction targets set the groundwork for any GHG reduction targets found in a future climate action plan; however, the City has not yet adopted a qualified GHG reduction plan under CEQA that would be applicable to the proposed project.

City of Carson Energy Efficiency Climate Action Plan

The *City of Carson 2015 Energy Efficiency Climate Action Plan* (EECAP) includes goals and policies to incorporate environmental responsibility into its daily management of its community and municipal operations. The EECAP includes a list of emission reduction actions organized by sector and a time frame for implementation. The EECAP classifies the reduction targets into two separate categories, community and municipal emissions. Energy efficiency strategies are outlined in the EECAP with goals and measures defined for each of the two categories.

SIGNIFICANCE THRESHOLDS

The following thresholds of significance are based on CEQA Guidelines Appendix G. For the purposes of this analysis, implementation of the proposed project would be considered to have a significant impact on GHG emissions if it would do any of the following:

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

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

The City currently does not have thresholds of significance for GHG emissions. However, the SCAQMD has adopted a threshold to address significance of GHG emissions from industrial projects: 10,000 metric tons of CO_2e per year.[5] Thus, the 10,000 $MTCO_2e$ per year threshold has been selected as the significance threshold, as it is most applicable

[5] South Coast Air Quality Management District, *South Coast AQMD Air Quality Significance Thresholds*, revised April 2019, http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf, accessed April 15, 2020.

to the proposed project. The 10,000 $MTCO_2e$ per year threshold is used in addition to the qualitative thresholds of significance set forth below from section VII of Appendix G to the CEQA Guidelines.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

PROJECT-RELATED SOURCES OF GREENHOUSE GASES

The proposed project includes two development options, one with warehouse and manufacturing uses ("Warehouse and Manufacturing Option") and one with warehouse uses only ("Warehouse Only Option"). Both development options would include construction of a 292,400-square foot warehousing/industrial development. This would include three concrete tilt-up light industrial buildings (Buildings "A," "B," and "C") ranging from approximately 61,400 square feet to 134,000 square feet; refer to Section 2.0, *Project Description*.

Project-related GHG emissions would include emissions from direct and indirect sources. The proposed project would result in direct and indirect emissions of CO_2, N_2O, and CH_4, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, while indirect sources include emissions from electricity consumption. The California Emissions Estimator Model version 2016.3.2 (CalEEMod) and EMission FACtor Model (EMFAC2017) was utilized to calculate the project's construction and operational GHG emissions. While both development options would include the construction a 292,400-square foot warehousing/industrial development, these development options would have a differing number of daily mobile trips. Based on the *Panattoni Project Traffic Impact Assumptions* (Traffic Impact Analysis) prepared by Ganddini Group, Inc. (dated June 3, 2020), the Warehouse Only Option would generate 509 daily trips and the Warehouse and Manufacturing Option would generate 788 total daily trips. Furthermore, according to the *Panattoni Warehouse Project: Vehicle Miles Traveled Analysis Draft Memorandum* (VMT Analysis) by Fehr & Peers (dated May 19, 2020), the Warehouse and Manufacturing Option would generate approximately 5,681 vehicle miles traveled (VMT) per day (i.e., approximately 2,068,719 miles per year[6]), and the Warehouse Only Option is projected to generate approximately 4,906 VMT per day (i.e., approximately 1,785,784 miles per year[7]); refer to Appendix F, *Traffic Impact Analysis and VMT Analysis*. Table 4.8-1, *Estimated Greenhouse Gas Emissions (Warehouse Only Option)* and Table 4.8-2, *Estimated Greenhouse Gas Emissions (Warehouse and Manufacturing Option)*, presents the estimated CO_2, CH_4, and N_2O emissions of the proposed project Options. The CalEEMod outputs are contained within the Appendix A, *Air Quality/Greenhouse Gas /Energy Data*.

6 This number may be slightly off due to rounding that occurs in the CalEEMod calculations. Additionally, CalEEMod assumes a total of 364 days in a year when it calculates the total annual VMT.

7 Ibid.

Table 4.8-1
Estimated Greenhouse Gas Emissions (Warehouse Only Option)

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2e[2,3]
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2e[1]	Metric Tons/yr[1]	Metric Tons of CO_2e[1]	
Direct Emissions						
Construction (amortized over 30 years)	26.46	<0.01	0.13	0.00	0.00	26.59
Area Source	0.02	<0.01	<0.01	0.00	0.00	0.02
Mobile Source	686.78	0.05	1.21	0.00	0.00	687.99
Indirect Emissions	**709.47**	**0.05**	**1.31**	**0.00**	**0.00**	**710.78**
Energy	918.55	0.04	1.10	0.01	3.61	923.26
Water Demand	181.06	1.77	44.31	0.04	12.96	238.33
Solid Waste	18.40	1.09	27.19	0.00	0.00	45.59
Total Project-Related Emissions[2]	***1,921.78 $MTCO_2e$/yr***					
SCAQMD GHG Threshold	***10,000 $MTCO_2e$/yr***					
Project Exceed SCAQMD GHG Threshold?	***No***					

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxides, $MTCO_2e$/yr = metric tons of carbon dioxide equivalent per year
1. Emissions were calculated using CalEEMod version 2016.3.2 and EMFAC2017, as recommended by the SCAQMD and CARB.
2. Totals may be slightly off due to rounding.
3. Carbon dioxide equivalent values calculated using the U.S. Environmental Protection Agency, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed April 9, 2020.

Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for detailed model input/output data.

Table 4.8-2
Estimated Greenhouse Gas Emissions (Warehouse and Manufacturing Option)

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2e[2,3]
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2e[1]	Metric Tons/yr[1]	Metric Tons of CO_2e[1]	
Direct Emissions						
Construction (amortized over 30 years)	26.46	<0.01	0.13	0.00	0.00	26.59
Area Source	0.02	<0.01	<0.01	0.00	0.00	0.02
Mobile Source	802.24	0.06	1.50	0.00	0.00	803.74
Indirect Emissions	**828.72**	**0.06**	**1.63**	**0.00**	**0.00**	**830.35**
Energy	918.55	0.04	1.10	0.01	3.61	923.26
Water Demand	181.06	1.77	44.31	0.04	12.96	238.33
Solid Waste	18.40	1.09	27.19	0.00	0.00	45.59
Total Project-Related Emissions[2]	***2,037.53 MTCO2e/yr***					
SCAQMD GHG Threshold	***10,000 MTCO2e/yr***					
Project Exceed SCAQMD GHG Threshold?	***No***					

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxides, MTCO2e/yr = metric tons of carbon dioxide equivalent per year
1. Emissions were calculated using CalEEMod version 2016.3.2, as recommended by the SCAQMD.
2. Totals may be slightly off due to rounding.
3. Carbon dioxide equivalent values calculated using the United States Environmental Protection Agency, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed April 9, 2020.

Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for detailed model input/output data.

Direct Project-Related Sources of Greenhouse Gases

Construction Emissions. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.[8] As seen in Table 4.8-1 and Table 4.8-2, the proposed Warehouse Only Option and Warehouse and Manufacturing Option would result in 26.59 $MTCO_2e$ when amortized over 30 years.

Area Source. Area source emissions were calculated using CalEEMod and project-specific land use data. As noted in Table 4.8-1 and Table 4.8-2, the proposed Warehouse Only Option and Warehouse and Manufacturing Option would result in 0.02 $MTCO_2e$/yr of area source GHG emissions.

Mobile Source. The CalEEMod model relies upon trip data within the Traffic Impact Analysis, VMT Analysis, and project-specific land use data to calculate mobile source emissions. Based on the Traffic Impact Analysis, the Warehouse Only Option would generate 509 daily trips and the Warehouse and Manufacturing Option would generate 788 total daily trips. According to the VMT Analysis, the Warehouse Only Option would generate approximately 1,785,784 VMT per year; and the Warehouse and Manufacturing Option would generate approximately 2,068,719 VMT per year. As shown in Table 4.8-1 and Table 4.8-2, the proposed Warehouse Only Option would result in 710.78 $MTCO_2e$/yr, while the Warehouse and Manufacturing Option would result in 803.74 $MTCO_2e$/yr, of mobile source GHG emissions.

Indirect Project-Related Sources of Greenhouse Gases

Energy Consumption. Energy consumption emissions were calculated using emission factors pound per megawatt-hour (lb/MWh) from the SCE *2018 Sustainability Report* and CalEEMod; refer to Appendix A. Both the Warehouse Only Option and Warehouse and Manufacturing Option would result in 923.26 $MTCO_2e$/year due to energy consumption; refer to Table 4.8-1 and Table 4.8-2.

Water Demand. According to CalEEMod, both the Warehouse Only Option and Warehouse and Manufacturing Option would result in a demand of approximately 54.09 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 238.33 $MTCO_2e$/yr for both development options; refer to Table 4.8-1 and Table 4.8-2.

Solid Waste. Solid waste associated with operations of the proposed Warehouse Only Option and Warehouse and Manufacturing Option would result in 45.59 $MTCO_2e$/yr; refer to Table 4.8-1 and Table 4.8-2.

CONCLUSION

As shown in Table 4.8-1, the Warehouse Only Option GHG emissions from direct and indirect sources combined would total 1,921.78 $MTCO_2e$/yr. As shown in Table 4.8-2, the Warehouse and Manufacturing Option GHG emissions from direct and indirect sources combine would total 2,037.53 $MTCO_2e$/yr. Thus, both the Warehouse Only Option and Warehouse and Manufacturing Option would be below the SCAQMD GHG threshold of 10,000 $MTCO_2e$/yr. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

[8] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008).

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. As detailed in Section 4.6, *Energy*, the EECAP includes goals and policies to incorporate environmental responsibility into its daily management of its community and municipal operations. The EECAP includes a list of energy efficiency goals and measures that would help reduce Citywide GHG emissions. As shown in Section 4.6, the project would be consistent with the goals and policies of the EECAP. The project would also be consistent with the 2017 Scoping Plan measures listed in Table 4.8-3, *Project Consistency with 2017 Scoping Plan*, and would be subject to future applicable Federal, State, and local regulatory requirements for GHG emissions. Furthermore, the project would be consistent with the following CAP goals and measures listed in Table 4.8-4, *Project Consistency with CAP*.

Table 4.8-3
Project Consistency with 2017 Scoping Plan

Sector / Source	Category / Description	Project Consistency Analysis
Energy		
California Renewables Portfolio Standard, Senate Bill 350 (SB 350) and Senate Bill 100 (SB 100)	Increases the proportion of electricity from renewable sources to 33 percent renewable power by 2020. SB 350 requires 50 percent by 2030. SB 100 requires 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030. It also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.	**No Conflict.** The project would utilize energy from SCE, which is required to meet the 2020, 2030, 2045, and 2050 performance standards. In 2017, 29 percent of SCE's electricity came from renewable resources.[2] By 2030, SCE plans to achieve 80 percent carbon-free energy.[3] The project would also meet the applicable requirements of the *2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings* (Title 24 Standards) and the California Green Building Standards (CALGreen).
CCR, Title 24, Building Standards Code	Energy Efficiency Standards for Residential and Nonresidential Buildings.	**Mandatory Compliance.** The project must demonstrate that it will meet the applicable requirements of the 2019 Title 24 Standards and CALGreen prior to approval of the building permits.
Assembly Bill 1109 (AB 1109)	The Lighting Efficiency and Toxics Reduction Act (AB 1109) prohibits manufacturing specified general purpose lights that contain levels of hazardous substances prohibited by the European Union. AB 1109 also requires a reduction in average Statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting and not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018.	**No Conflict.** According to the California Energy Commission, energy savings from AB 1109 are achieved through codes and standards. Energy savings from AB 1109 are calculated as part of codes and standards savings.[4] As discussed above, the project would meet the applicable requirements of the 2019 Title 24 Standards and CALGreen, which include energy efficient lighting.
California Green Building Standards (CALGreen) Code Requirements	All bathroom exhaust fans shall be ENERGY STAR compliant.	**Mandatory Compliance.** The project construction plans must demonstrate that energy efficiency appliances, including bathroom exhaust fans, and equipment and would meet the applicable energy standards in the 2019 Title 24 Standards and CALGreen prior to approval of the building permits.
	HVAC Systems will be designed to meet American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards.	**Mandatory Compliance.** The project construction plans must demonstrate that energy efficiency appliances and equipment and would meet the applicable energy standards in ASHRAE 90.1-2013 Appendix G and the 2019 Title 24 Standards and CALGreen prior to approval of the building permits.
	Energy commissioning shall be performed for buildings larger than 10,000 square feet.	**Mandatory Compliance.** The project must demonstrate compliance with CALGreen prior to approval of the building permits.
	Air filtration systems are required to meet a minimum efficiency reporting value (MERV) 8 or higher.	**Mandatory Compliance.** The project must demonstrate compliance with the requirement of MERV 13 or higher as part of the 2019 CALGreen Nonresidential Mandatory Measure 5.504.5.3, *Filters*, prior to approval of the building permits.
	Refrigerants used in newly installed HVAC systems shall not contain any CFCs.	**Mandatory Compliance.** The project must meet this requirement as part of its compliance with the CALGreen prior to approval of the building permits.

Table 4.8-3
Project Consistency with 2017 Scoping Plan

Sector / Source	Category / Description	Project Consistency Analysis
	Parking spaces shall be designed for carpool or alternative fueled vehicles. Up to eight percent of total parking spaces will be designed for such vehicles.	**Mandatory Compliance.** The project would meet this requirement as part of its compliance the CALGreen. Per the 2019 CALGreen Nonresidential Mandatory Measure 5.106.5.2, the project would designate a minimum of 31 parking spaces (eight percent) for carpool and/or alternative-fueled vehicles. In addition, the project would be required to install a minimum of 23 electric vehicle (EV) charging spaces (six percent) per the 2019 CALGreen Nonresidential Mandatory Measure 5.106.5.3.3.
	Long-term and short-term bike parking shall be provided for up to five percent of vehicle trips.	**Consistent.** The project would meet this requirement by providing bicycle parking spaces equivalent to five percent of the tenant vehicular parking spaces as part of its compliance with the 2019 CALGreen Nonresidential Mandatory Measure 5.106.4.1.2.
	Requires use of low VOC coatings consistent with AQMD Rule 1168.	**Consistent.** The project would be consistent with this regulation and would meet the low VOC coating requirements.
SB 1368, CCR Title 20, Cap-and-Trade Program	The Cap-and-Trade Program places an economy-wide "cap" on major sources of greenhouse gas emissions (i.e. refineries, power plants, industrial facilities and transportation fuels) and minimizes the compliance costs of achieving AB 32 goals. Electricity generators and large industrial facilities emitting 25,000 $MTCO_2e$ or more annually are subject to the Cap-and-Trade Program. Each year the cap is lowered by approximately 3 percent, ensuring that California is reducing greenhouse gases.	**Not Applicable.** As shown in Table 4.8-1 and Table 4.8-2, the proposed project and development would generate approximately 1,921.78 $MTCO_2e$/yr (Warehouse Only Option) and 2,037.53 $MTCO_2e$/yr (Warehouse and Manufacturing Option), which is below the 25,000 $MTCO_2e$/yr Cap-and-Trade screening level. As such, the proposed project would not be subject to the requirements of the Cap-and-Trade Program.
Mobile Sources		
Mobile Source Strategy (Cleaner Technology and Fuels)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled.	**Consistent.** The project would be consistent with this strategy by supporting the use of zero-emission and low-emission vehicles. The project would designate a minimum of eight percent of the parking spaces for carpool and/or alternative-fueled vehicles. In addition, the project would be required to install a minimum of six percent of the parking spaces for EV charging spaces.
AB 1493 (Pavley Regulations)	Reduces GHG emissions in new passenger vehicles from model year 2012 through 2016 (Phase I) and model years 2017–2025 (Phase II). Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020.	**Not Applicable.** These regulations apply to automobile manufacturers, not individual land uses. Mobile emissions associated with the project in Table 4.8-1 and Table 4.8-2 reflect compliance with this regulation. GHG emissions related to vehicular travel by the project would benefit from this regulation because vehicle trips associated with the project would be affected by AB 1493. Mobile source emissions generated by the project would be reduced with implementation of AB 1493 consistent with reduction of GHG emissions under AB 32.

Table 4.8-3
Project Consistency with 2017 Scoping Plan

Sector / Source	Category / Description	Project Consistency Analysis
Low Carbon Fuel Standard (Executive Order S-01-07)	Establishes protocols for measuring life-cycle carbon intensity of transportation fuels and helps to establish use of alternative fuels. This executive order establishes a Statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020	**Not Applicable.** The Low Carbon Fuel Standard applies to manufacturers of automotive fuels, not to individual land uses. Mobile emissions associated with the project in Table 4.8-1 and Table 4.8-2 reflect compliance with this regulation. GHG emissions related to vehicular travel by the project would benefit from this regulation and mobile source emissions generated by the project would be reduced with implementation of the Low Carbon Fuel Standard consistent with reduction of GHG emissions under AB 32.
Advanced Clean Cars Program	In 2012, CARB adopted the Advanced Clean Cars (ACC) program to reduce criteria pollutants and GHG emissions for model year vehicles 2015 through 2025. ACC includes the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.	**Not Applicable.** The standards would apply to manufacturers of vehicles used by visitors and employees associated with the project. The project would designate a minimum of eight percent of the parking spaces for carpool and/or alternative-fueled vehicles. In addition, the project would be required to install a minimum of six percent of the parking spaces as EV charging spaces.
Senate Bill (SB) 375	SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035.	**Consistent.** The project would be consistent with Southern California Association of Government (SCAG) SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) goals and objectives under SB 375 to implement "smart growth." The project would provide employment opportunities in close proximity to off-site residential uses and other job centers in the City of Carson. This would promote access to modes of transportation that provide options for reducing reliance on automobiles and minimizing associated air pollutant emissions. As the project would comply with the RTP/SCS, the project would be consistent with SB 375.
Water		
CCR, Title 24, Building Standards Code	Title 24 includes water efficiency requirements for new residential and non- residential uses.	**Mandatory Compliance.** The project would be required to comply with the Chapter 5, *division 5.3 – Water Efficiency and Conservation* of the 2019 Title 24 Standards. This includes compliance with the Model Water Efficient Landscape Ordinance (MWELO).
Senate Bill X7-7:	The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal. This is an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the	**Consistent.** The project would consume water from water suppliers that would comply with Senate Bill X7-7 and the Water Sector of the AB 32 Scoping Plan. In addition, the project would comply with outdoor water conservation measures outlined per

Table 4.8-3
Project Consistency with 2017 Scoping Plan

Sector / Source	Category / Description	Project Consistency Analysis
	energy necessary and the associated emissions to convene, treat, and distribute the water; it also reduces emissions from wastewater treatment.	California water regulations (AB 1881) and local water efficient landscape ordinances.
Solid Waste		
California Integrated Waste Management Act (IWMA) of 1989 and Assembly Bill (AB) 341	The IWMA mandated that state agencies develop and implement an integrated waste management plan which outlines the steps to be taken to divert at least 50 percent of their solid waste from disposal facilities. AB 341 directs CalRecycle to develop and adopt regulations for mandatory commercial recycling and sets a Statewide goal for 75 percent disposal reduction by the year 2020.	**Not Applicable.** These regulations apply to municipal agencies who are responsible for reducing landfill disposal of solid wastes collected in their jurisdictions. GHG emissions related to solid waste generation from the project would benefit from this regulation as it would decrease the overall amount of solid waste disposed of at landfills. The decrease in solid waste would then in return decrease the amount of methane released from the decomposing solid waste. Project-related GHG emissions from solid waste generation provided in Table 4.8-1 and Table 4.8-2 include a 50-percent reduction in solid waste generation source emissions.

Notes:

1. California Air Resources Board, *California's 2017 Climate Change Scoping Plan, Figure 4: California 2013 Anthropogenic Black Carbon Emission Sources*, November 2017.
2. California Energy Commission, *2017 Power Content Label Southern California Edison*, https://www.sce.com/sites/default/files/inline-files/2017PCL_0.pdf, accessed April 9, 2020.
3. Southern California Edison, *The Clean Power and Electrification Pathway*, https://newsroom.edison.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/166/files/20187/g17-pathway-to-2030-white-paper.pdf, accessed April 15, 2020.
4. California Energy Commission, *2013 California Energy Efficiency Potential and Goals Study, Appendix Volume I*, August 15, 2013.

Source: California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017.

Table 4.8-4
Project Consistency with CAP

Goal	Measure	Project Compliance
Goal EE: D – Increase Energy Efficiency in New commercial Developments	**Measure EE: D1 –** Encourage or require EE Standards Exceeding Title 24:	The project would comply with the 2019 Title 24 standards. The 2019 Title 24 standards, which took effect on January 1, 2020, uses 30 percent less energy than non-residential buildings built under the 2016 standards primarily due to more efficient lighting standards. Furthermore, the project would include cool roofing over the office areas.
Goal EE: E. – Increase Energy Efficiency through Water Efficiency (WE)	**Measure EE: E1-** Promote or Require Water Efficiency through SB X7-7.	The project would consume water from water suppliers that would comply with Senate Bill X7-7 and the Water Sector of the AB 32 Scoping Plan. In addition, the project's irrigation systems would be controlled by a weather-based smart irrigation controller to minimize water usage and reduce irrigation runoff. Further, the project would comply with outdoor water conservation measures outlined per California water regulations (AB 1881) and local water efficient landscape ordinances.
	Measure EE: E2 – Promoting Water Efficiency Standards Exceeding SB X7-7.	
Goal EE: F – Decrease energy demand through reducing urban heat island effect.	**Measure EE: F1 –** Promote Tree Planting for Shading and Energy Efficiency.	Approximately 30,522 square feet of ornamental landscaping would be installed throughout the project site generally located along the project's frontage and internal drive aisles; refer to Exhibit 2-5, *Conceptual Landscape Plan*. Planting materials would include a variety of ornamental trees, including London plane tree, fern pine, Italian cypress, African sumac, Bailey acacia, Brisbane box trees, and crape myrtle. In addition, shrubs, groundcover, and shrub masses would be dispersed throughout the project site.

Source: City of Carson, *Climate Action Plan*, December 2017.

Overall, the project would not conflict with or impede implementation of reduction goals identified in the EECAP, CAP, 2017 Scoping Plan, and other Federal, State, and Regional strategies to help reduce GHG emissions. As such, the project would not conflict with an applicable GHG reduction plan, policy, or regulation. Further, as shown in Table 4.8-1 and Table 4.8-2, the project and its two development options would not exceed the SCAQMD GHG screening threshold of 10,000 $MTCO_2e$/yr. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. 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?		✓		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		✓		
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				✓
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		✓		
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				✓

This section is primarily based upon the *Phase I Environmental Site Assessment, Former Stauffer Chemical Company Facility, 2112 East 223rd Street, Carson, California 90745* (Phase I ESA), prepared by Avocet Environmental, Inc. (Avocet) (dated November 22, 2019); refer to Appendix C, *Phase I ESA*.

For the purpose of this analysis, the term "hazardous material" refers to both hazardous substances and hazardous waste. A material is defined as "hazardous" if it appears on a list of hazardous materials prepared by a Federal, tribal, State, or local regulatory agency, or if it possesses characteristics defined as "hazardous" by such an agency. A "hazardous waste" is a solid waste that exhibits toxic or hazardous characteristics (i.e., ignitability, corrosivity, reactivity, and/or toxicity).

SITE HISTORY AND EXISTING CONDITIONS

According to the Phase I ESA, between 1959 and 1982, the project site was developed with a polyvinyl chloride (PVC) manufacturing facility operated by American Chemical Company and Stauffer Chemical Company (Stauffer). American Chemical Company and Stauffer produced PVC resin utilizing ethylene chloride, ethylene dichloride (EDC, aka 1,2-dichloroethane or 1,2-DCA) and vinyl chloride monomer (VCM) as manufacturing intermediates. In addition to numerous aboveground storage tanks (ASTs) for raw materials, intermediary and finished products, and waste products, the project site featured three underground storage tanks (USTs) in which leaded gasoline and waste oil were stored. All three of these USTs were permanently closed by removal in 1993 and are covered by a "no further action" (NFA) letter issued by the Los Angeles County Department of Public Works (DPW). In 1982, Stauffer ceased manufacturing PVC resin and, over the next few years, demolished and removed its former infrastructure "to grade," leaving foundations and other subsurface features, including pipelines, in place. No use has been made of the project site since Stauffer terminated PVC manufacturing operations in 1982.

American Chemical Company and Stauffer manufacturing operations resulted in very significant impacts to vadose zone soil and groundwater. The principal contaminants include 1,2-DCA, vinyl chloride (VC), and trichloroethylene. Soil impacts were identified beneath on-site manufacturing infrastructure. The highest contaminant concentrations in groundwater were in the uppermost water-bearing zone, but groundwater in three deeper water-bearing zones has also been impacted. Laterally, contaminants in groundwater have migrated from the project site to neighboring properties, many of which have their own groundwater contamination issues. After characterizing subsurface conditions, vadose zone soil remediation using high-vacuum vapor liquid extraction (VLE) occurred between 1998 and 2011. In its 13 years of operation, the VLE system is estimated to have removed 300,810 pounds of contaminant mass from the subsurface; however, significant residual contamination remains in fine-grained, saturated soils between 25 and 35 feet below ground surface (bgs). Soil volatile organic compound (VOC) concentrations in the upper 15 feet of the vadose zone were below the target cleanup levels at the end of the VLE remediation effort. Residual 1,2-DCA and VC isoconcentrations were identified in soil at different depth intervals. Because of the residual contamination in soil between 25 and 35 feet bgs, the project site has been deed-restricted via a recorded land use covenant (LUC). The LUC for the project site prohibits residential and sensitive land uses and requires vapor barriers beneath new buildings unless the California Department of Toxic Substances Control (DTSC) accepts "analysis" that indicates they are unnecessary. After the LUC for the project site was recorded, DTSC certified the soil remediation effort.

Groundwater remediation using enhanced *in-situ* bioremediation (EISB) was initiated at the former Stauffer facility in 2011 and is ongoing. EISB involves extracting contaminated groundwater from wells along the hydraulically downgradient (western) boundary of the project site, amending it with electron donors and nutrients, and then reinjecting it via hydraulically upgradient injection wells located along the northern and eastern boundary of the project site and the eastern boundary of the adjoining property. It is noted that extracted groundwater is not treated to remove VOCs prior to being reinjected. It is further noted that the easement recorded to accommodate the EISB infrastructure is required until remediation is completed. The duration of the EISB effort is not known but is expected to be at least five years.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Exposure of the public or the environment to hazardous materials could occur through improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel, a transportation accident, environmentally unsound disposal methods, or fire, explosion, or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

CONSTRUCTION

Project construction could expose construction workers and the public to temporary hazards related to the transport, use, and maintenance of construction materials (i.e., oil, diesel fuel, transmission fluid, etc.). However, these activities would be short-term, and the materials used would not be in such quantities, or stored in such a manner, as to pose a significant safety hazard. All project construction activities would demonstrate compliance with the applicable laws and regulations governing the use, storage, and transport of hazardous materials, ensuring that all potentially hazardous materials are used and handled in an appropriate manner. Impacts concerning the routine transport, use, or disposal of hazardous materials during project construction would be less than significant.

OPERATIONS

The project proposes the construction of a warehouse/industrial development with three concrete tilt-up buildings. Although the end user of the buildings is not known at this time, it is reasonably assumed that long-term operation of the project may involve the routine transport, use, or disposal of hazardous materials. The types and quantities of hazardous substances utilized at the project site would vary by the potential future users and, as a result, the nature of potential hazards would vary.

The proposed project would be subject to compliance with existing regulations, standards, and guidelines established by the U.S. Environmental Protection Agency (EPA), State, County of Los Angeles, and the City of Carson related to the transport, use, and disposal of hazardous materials. The project is subject to compliance with the existing hazardous materials regulations, which are codified in California Code of Regulations Titles 8, 22, and 26, and their enabling legislations set forth in Health and Safety Code Chapter 6.95 as well as California Code of Regulations Title 49. Both the Federal and State governments require any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. The Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses would be required to submit their plans to the Certified Unified Program Agency (CUPA) (Los Angeles County Fire Department), which would make the plans available to emergency response personnel.

Further, implementation of the proposed project would require relocation of existing on-site monitoring wells and remedial equipment. However, the project would be required to comply with the LUC, which requires the project Applicant to seek approval from the DTSC for interference with remedial systems on-site. Relocation of any monitoring wells or remedial equipment would be conducted in accordance with the standards and regulations established by the DTSC, and others as applicable, such as Los Angeles Regional Water Quality Control Board (RWQCB) and Los Angeles County Department of Public Health Environmental Health Division (LADPH), pursuant to existing Federal, State, and local laws and regulations.

While the risk of exposure to hazardous materials cannot be eliminated, best management practices (BMPs) can be implemented to reduce risk to acceptable levels. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner, and would minimize the potential for safety impacts to occur. Impacts regarding the routine transport, use, or disposal of hazardous materials during project operations would be less than significant.

Mitigation Measures: No mitigation is required.

b) 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?

Less Than Significant Impact With Mitigation Incorporated. One of the means through which human exposure to hazardous substance could occur is through accidental release. Incidents that result in an accidental release of

hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. If not cleaned up immediately and completely, the hazardous substances can migrate into the soil or enter a local stream or channel causing contamination of soil and water. Human exposure of contaminated soil, soil vapor, or water can have potential health effects on a variety of factors, including the nature of the contaminant and the degree of exposure.

SHORT-TERM IMPACTS (CONSTRUCTION)

Construction Equipment

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law. Impacts would be less than significant in this regard.

Construction Activities

Construction activities could also result in accidental conditions involving existing on-site contamination. The following analysis considers past uses of the project site and its vicinity, which may have resulted in existing on-site soil, soil vapor, and/or groundwater contamination potentially causing accidental conditions during site disturbance activities.

Historical Uses: PVC Manufacturing

As previously discussed, a PVC manufacturing facility operated on-site under American Chemical Company and Stauffer Chemical Company from 1959 to 1982. As a result of the site's former use as a PVC manufacturing facility, soil, soil vapor, and groundwater beneath the project site have been impacted by VOCs. Ongoing subsurface investigations and remediation have occurred at the project site since 1982.

Significant groundwater impacts resulting from former PVC manufacturing operations were found in four discrete water-bearing zones underneath the project site. Specifically, VOCs such as 1,2-DCA, VC, and trichloroethylene (TCE) were detected in concentrations in excess of regulatory screening levels. The Phase I ESA acknowledges that contaminants have migrated vertically down to the water-bearing zone at approximately 300 feet bgs and laterally beyond the former PVC facility boundary to the southwest and west. In addition, detections of high aromatic VOC concentrations, notably benzene, suggested that groundwater beneath the project site had been impacted by contaminant migration from offsite sources. Active remediation systems related to VOC releases, including an EISB system, are currently being performed at the project site. The EISB system involves the introduction of an electron donor (ethanol) to contaminated groundwater. According to the Phase I ESA, groundwater contamination on-site has not been addressed to DTSC's satisfaction and remediation remains ongoing at the project site.

Groundwater in the vicinity of the project site is reported at approximately 20 to 30 feet bgs. Based on the project's *Geotechnical Investigation, Three Proposed Warehouses, 2112 East 223rd Street, Carson, California, for Panattoni Development Company, Inc*. (Geotechnical Investigation), proposed earthwork would not exceed approximately eight feet bgs or eight feet below building pad grade, whichever is greater; refer to Appendix B, *Geotechnical Investigation*. The project site has been previously graded and significant excavation activities would not be required during project construction. Thus, proposed excavation activities are not anticipated to encounter contaminated groundwater. However, construction workers could be exposed to contaminated soil vapors during excavation activities. Thus, prior to construction, the project Applicant would be required to retain a qualified Phase II/Site Characterization Specialist to

conduct verification soil vapor sampling on the project site during any excavation activities at a depth that would present a concern to worker safety; refer to Mitigation Measure HAZ-1. Should any samples determine that residual contamination in soil vapor present a risk to construction workers during excavation activities, the Phase II/Site Characterization Specialist would have the authority to temporarily suspend construction activity at that location for the protection of workers or the public.

Significant vadose zone soil impacts from VOCs were found in localized "hot spots" which coincide with former process areas. Soil remediation (i.e., high-vacuum vapor liquid extraction [VLE]) was conducted between 1998 and 2011. Approximately 300,810 pounds of VOC mass was removed from the upper 35 feet of the unsaturated and saturated soil profile. On termination of VLE, sampling results determined VOCs were not present in shallow soil (i.e., 15 feet bgs) above regulatory thresholds. However, residual VOC concentrations above regulatory thresholds were detected in the generally saturated and fine-grained soils between 25 and 35 feet bgs. As significant VOC concentrations remain present at this vertical interval, soil contamination between 25 and 35 feet bgs is now being addressed as part of the ongoing groundwater remediation process. As a result of this significant residual contamination, the site is "deed-restricted" via a LUC. The LUC restricts site use for commercial or industrial purposes only while prohibiting uses that involve sensitive receptors such as residential, schools or daycare facilities. The LUC also prohibits drilling groundwater wells and extraction of groundwater on-site except as approved by DTSC. A Soil Management Plan (SMP) is required during grading and excavation activities if soil at or below 15 feet bgs is to be disturbed. As stated above, proposed earthwork would not exceed approximately eight feet bgs or eight feet below building pad grade, whichever is greater; refer to Appendix B. Therefore, the project would not be required to implement a SMP. Notwithstanding, should deeper excavations occur, all such activities would be required to follow the LUC by law. In addition, any transport of contaminated soil would be required to comply with existing Federal, State, and local laws and regulations pertaining to transport and disposal of such materials.

On-site infrastructure was demolished after operations ceased in 1982. However, foundations and various subsurface features including pipelines and possibly sumps and vaults were left in place. Based on the Phase I ESA, "dry" underground pipelines were encountered during construction of remediation systems on-site. However, due to historic operations, unknown subsurface infrastructure has the potential to be contaminated by hazardous substances. Thus, in the event that unknown subsurface infrastructure is uncovered during construction, the contractor would be required to take immediate and appropriate measures in reducing potential risks to construction workers and the public; refer to Mitigation Measure HAZ-2. Mitigation Measure HAZ-2 requires a qualified environmental professional with Phase II/Site Characterization experience to provide field monitoring using appropriate instrumentation, and to assist with segregation of excavated material for proper disposal at a licensed waste-handling facility. Subsurface infrastructure transport and disposal would be required to comply with existing Federal, State, and local laws and regulations.

Last, implementation of the proposed project requires the relocation of existing on-site monitoring wells and remedial equipment. As stated above, the project would be required to comply with the LUC, which would require the project Applicant to seek approval from the DTSC for interference with remedial systems on-site. Relocation of any monitoring wells or remedial equipment would be conducted in accordance with the standards and regulations established by the DTSC and others as applicable, such as RWQCB and LADPH, pursuant to existing Federal, State, and local laws and regulations.

Following compliance with existing Federal, State, and local laws and regulations as well as implementation of Mitigation Measures HAZ-1 and HAZ-2, the potential for accidental conditions during project construction would be reduced to less than significant levels.

LONG-TERM IMPACTS (OPERATIONAL)

Groundwater and Soil Vapor Contamination

Refer to Response 4.9(a), above, for a description of impacts related to proposed operations at the project site and regulatory framework related to chemical safety. The project site could be susceptible to vapor intrusion as a result of the existing contaminated soil and groundwater. In order to ensure that potential accidental conditions involving exposure of future users to vapor intrusion does not occur, the project Applicant would be required adhere to regulatory requirements imposed on the project by the LUC and enforced by DTSC, as well as other agencies (i.e., LADPH) as necessary. The LUC requires installation of vapor barriers beneath new buildings for any permitted development unless additional analysis is provided and approved by the DTSC. Upon adherence to existing regulations related to chemical safety, impacts pertaining to the potential for accidental conditions during project operations would be reduced to less than significant levels.

Mitigation Measures:

HAZ-1 Soil Vapor Sampling. The Applicant shall retain a qualified Phase II/Site Characterization Specialist to conduct verification soil vapor sampling during any excavation activities at a depth that would present a concern to worker safety. Should any samples determine that residual contamination in soil vapor present a risk to construction workers during excavation activities, the Phase II/Site Characterization Specialist shall have the authority to either implement additional safety precautions and/or temporarily suspend construction activity at said location for the protection of workers or the public.

HAZ-2 Unknown Subsurface Infrastructure. Observations shall be made by the contractor during grading and utility trenching for the presence of unknown pipelines, buried infrastructures, containers, debris, and/or soil potentially impacted by chemicals compounds or fuel and oil hydrocarbons. Indications of impacted soil may include chemical or fuel odors, unusual coloration, apparent moisture, and staining. If any of the above are encountered, a qualified environmental professional with Phase II/Site Characterization experience shall be consulted to provide field monitoring using appropriate instrumentation, and to assist with segregation of excavated material for proper disposal at a licensed waste-handling facility.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The project site is not located within one-quarter mile of a school. The nearest school to the project site is Del Amo Elementary School located approximately 0.80-mile to the north of the project site at 21228 Water Street. Therefore, the project would not emit hazardous emissions or the handle hazardous or acutely hazardous materials, substances, or wastes within 0.25-mile of an existing or proposed school. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant Impact With Mitigation Incorporated. Government Code Section 65962.5 requires the DTSC and State Water Resources Control Board (SWRCB) to compile and update a regulatory sites list (pursuant to the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Health and Safety Code Section 116395. Government Code Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of

Regulations, to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

The project site is listed by the DTSC pursuant to Government Code Section 65962.5.[1] However, as discussed in Responses 4.9(a) and 4.9(b), impacts pertaining to reported releases and accidental conditions at the project site would be reduced to less than significant levels with implementation of Mitigation Measures HAZ-1 through HAZ-2.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-2.

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 or excessive noise for people residing or working in the project area?

No Impact. The nearest public airport to the project site is the Long Beach Municipal Airport located approximately 4 miles to the east at 4100 Donald Douglas Drive, in the City of Long Beach. According to the Los Angeles County Airport Land Use Commission, the project site is located outside of the Airport Influence Area for the Long Beach Airport.[2] Further, there are no private airports or airstrips within two miles of the project site.[3] Therefore, project implementation would not introduce a safety hazard or excessive noise for people residing or working in the project area. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact With Mitigation Incorporated. The City prepared the Natural Hazards Mitigation Plan (Mitigation Plan) in 2013 as mandated by the Disaster Mitigation Act of 2000. The Mitigation Plan provides resources and information to assist the City's residents, public and private sector organizations, and others in planning for natural, man-made, and technological hazards. The Mitigation Plan also includes a five-year action plan matrix with long- and short-term action items that aims to reduce risk and prevent loss in future hazard events. In addition, the City complies with the Los Angeles County Emergency Management Plan.

As indicated in Section 4.17, *Transportation*, the project does not propose changes to the City's circulation system, such as sharp curves or dangerous intersections, and would not introduce incompatible uses to area roadways (e.g., farm equipment). Roadway improvements are proposed to provide site access (three full access driveways along East 223rd Street) and circulation. The proposed driveways and interior vehicular circulation are designed to meet the fire truck turning radii and fire access requirements, and would not result in inadequate emergency access. Construction of the project's utility connections within East 223rd Street would require temporary partial lane closure. During periods when partial road closure is required, the Applicant would be required to implement a traffic management plan (Mitigation Measure TRA-2). The traffic management plan would ensure at least one lane remains open (for East 223rd Street) and emergency access is maintained during installation of the project's undergrounded utilities. As a

[1] Department of Toxic Substances Control, *EnviroStor Website*, https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29, accessed February 10, 2020.

[2] Los Angeles County Airport Land Use Commission, *Airport Influence Area – Long Beach Airport*, http://planning.lacounty.gov/assets/upl/project/aluc_airport-long-beach.pdf, dated May 13, 2003.

[3] The Goodyear Blimp Airship Base is located approximately 3 miles northwest of the project site at 19200 South Main Street, in the City of Carson. Due to the infrequent operations of blimp airships, the Goodyear Blimp Airship Base is not considered an airport and does not have airport safety zones.

result, with implementation of Mitigation Measure TRA-2, impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measure TRA-2.

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

No Impact. The project site is generally surrounded by urban/developed land and no wildland areas are present in the project vicinity. According to the California Department of Forestry and Fire Protection's *Fire Hazard Severity Zone (FHSZ) Map for Los Angeles County*, the project site is not located in a high fire hazard area for either local or State or Federal responsibility.[4] Therefore, project implementation would not expose people or structures to a significant risk involving wildland fires, and no impacts would occur in this regard

Mitigation Measures: No mitigation is required.

[4] California Department of Forestry and Fire Protection, *Los Angeles County Fire Hazard Severity Zones in SRA*, dated November 7, 2007.

4.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			✓	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
1) Result in substantial erosion or siltation on- or off-site?			✓	
2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			✓	
3) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			✓	
4) Impede or redirect flood flows?			✓	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

This section is based on the following hydrology and water quality documentation (refer to Appendix D, *Hydrology and Water Quality Documentation*):

- *Low Impact Development (LID) for 2112 East 223rd Street, Carson, California 90810* (LID), prepared by Thienes Engineering, Inc., dated January 6, 2020.
- *Preliminary Hydrology Calculations*, prepared by Thienes Engineering, Inc., dated November 21, 2019.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact. As part of Section 402 of the Clean Water Act, the Environmental Protection Agency (EPA) has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct storm water discharges. In California, the State Water Regional Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the nine Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The project site is within the jurisdiction of the Los Angeles RWQCB.

Impacts related to water quality typically range over three different periods: 1) during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest; 2) following construction, prior to the establishment of ground cover, when the erosion potential may remain relatively high; and 3) following completion of the project, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

CONSTRUCTION

Project construction could result in short-term impacts to water quality due to the handling, storage, and disposal of construction materials, maintenance and operation of construction equipment, and earthmoving activities. Potential pollutants associated with these activities could damage downstream waterbodies. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the SWRCB's *General Permit for Discharges of Stormwater Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ* (General Construction Permit). The General Construction Permit requires preparation and implementation of a stormwater pollution prevention plan (SWPPP). The SWPPP would specify best management practices (BMPs) to be used during construction of the project to minimize or avoid water pollution, thereby reducing potential short-term impacts to water quality. Upon completion of the project, the applicant would be required to submit a Notice of Termination to the SWRCB to indicate that construction has been completed.

Project construction activities would also be subject to compliance with the water quality BMPs set forth in Municipal Code Chapter 8, *Storm Water and Urban Runoff Pollution Control*. This chapter contains the City's Storm Water Management and Discharge Control Ordinance and includes conditions and requirements established to control urban pollutant runoff into the City's stormwater system. Compliance with the General Construction Permit requirements and Municipal Code Chapter 8 would reduce the project's short-term impacts to water quality to less than significant levels.

OPERATIONS

According to the LID prepared for the proposed project, project operations are anticipated to generate pollutants of concern with the potential to impact downstream receiving waters including heavy metals, nutrients, and trash; refer to Appendix D. The proposed project is considered a redevelopment project subject to the Los Angeles County Department of Public Works (LACDPW) requirements in the *2014 Low Impact Development (LID) Standards Manual*. Pursuant to Municipal Code Section 5809, *Storm Water Pollution Control Measures for New Development and Redevelopment Projects*, the proposed project would be required to implement LID structural and non-structural BMPs; 2) source control BMPs, and 3) structural and nonstructural BMPs for specific types of land uses in order to minimize operational impacts to water quality. In conformance with County LID and Municipal Code Section 5809 requirements, a project-specific LID has been prepared to reduce pollutant discharges to the maximum extent practicable for the protection of water quality at receiving water bodies and the support of designated beneficial uses; refer to Appendix D. The LID includes project-specific BMPs to minimize stormwater pollutants of concern, including construction of a WetlandMOD biofiltration system and an underground detention system. Other source control BMPs identified in the

project's LID include stenciling storm drains with prohibitive language and/or graphical icons to prevent dumping, prohibiting outdoor materials storage, locating trash enclosures away from the roof drainage, and installation of irrigation systems that utilize a weather-based smart irrigation controller to minimize water usage and reduce dry weather urban runoff. In addition, the concrete surface of the proposed loading docks would be designed to minimize run-on to the loading docks and would be treated through biofiltration. Following compliance with the project-specific BMPs identified in the project's LID, long-term water quality impacts would be less than significant.

Mitigation Measures: No mitigation is required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The proposed project would increase impervious surfaces at the project site compared to existing conditions. However, implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project impedes sustainable groundwater management of the basin. Although groundwater was encountered at a depth of approximately 20 to 30 feet below ground surface (bgs), the project site is not currently used for groundwater extraction or groundwater recharge purposes; refer to Appendix B, *Geotechnical Report*. It is acknowledged that groundwater is currently contaminated and undergoing on-site remediation; refer to Section 4.9, *Hydrology and Water Quality*. Further, California Water Service has confirmed that adequate water services are available to serve the proposed project from existing commitments; refer to Appendix G, *Utility Will Serve Letters*.[1] Thus, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

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

1) Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river. Project compliance with the General Construction Permit requirements and Municipal Code Chapter 8 would minimize erosion and water quality impacts during construction to less than significant levels; refer to Response 4.10(a).

Although the project would result increase impervious surfaces compared to existing conditions, long-term operation of the project would not have the potential to result in substantial erosion or siltation given the nature of proposed use and the urbanized project setting. The project site would not include any large areas of exposed soils that would be subject to runoff. Rather, any unpaved areas would be landscaped to minimize the potential for erosion or siltation on- or off-site; refer to Exhibit 2-5, *Conceptual Landscape Plan*. The proposed project would include operational BMPs in conformance with County LID and Municipal Code requirements in order to reduce long-term water quality impacts to less than significant levels; refer to Response 4.10(a). Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

1 Written Communication: Daniel Armendariz, District Manager, California Water Service, September 24, 2019.

2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less Than Significant Impact. There is no existing drainage system on-site and surface runoff currently ponds on the southwestern portion of the project site. Currently, the project site is almost entirely pervious (approximately five percent impervious). Development of Buildings A, B, and C, associated parking, and landscaping would result in an increase in impervious areas. As a result, the project would increase impervious surface areas compared to existing pre-project conditions.

As noted in Section 2.4, *Project Characteristics*, runoff from the northerly portions of Buildings A and B and the northerly parking areas would drain to grate inlets located in the northerly parking area. An underground storm drain system would convey flows southerly between Buildings A and B and then westerly around Building A. Runoff from Building C and the southerly portions of Buildings A and B would drain to grate inlets located within the truck docking areas. The proposed on-site storm drain system would then continue northerly towards East 223rd Street to a proposed sump pump that would pump runoff to the street. According to the project's LID, the proposed sump pump would limit runoff from the site to East 223rd Street to the allowable peak flow rate provided by the County (approximately 3.0 cubic feet per second [cfs]), with the remaining volume to be temporarily stored within the underground detention system and on the surface of the truck yard near Building A. The proposed landscaped areas adjacent to East 223rd Street would sheet flow into the street. According to the project's LID, the truck yard area associated with Building A would capture approximately 11,330 cubic feet of surface flows. The remaining volume (45,274 cubic feet) would be contained in the underground detention system. Based on the Preliminary Hydrology Calculations, the project's proposed detention system would ensure the project's peak flow rate does not exceed the allowable peak flow rate of 3.0 cfs. Thus, as the proposed storm drain system would meet County requirements and alleviate existing ponding conditions, impacts concerning on- or off-site flooding would be less than significant.

Mitigation Measures: No mitigation is required.

3) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. As discussed in Response 4.10(c)(2), although the proposed project would involve an increase in impervious surfaces, the project's proposed storm drain system would ensure the project's peak flow rate does not exceed the allowable peak flow rate provided by the County (3.0 cfs). Therefore, the proposed project is not anticipated to exceed the capacity of an existing or planned stormwater drainage system. As stated in Response 4.10(a), operations of the proposed project would be subject to compliance with NPDES requirements and County LID standards in order to reduce long-term water quality impacts to less than significant levels. Therefore, project implementation is not anticipated to create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

4) Impede or redirect flood flows?

Less Than Significant Impact. Refer to Responses 4.10(c)(2) and 4.10(d).

Mitigation Measures: No mitigation is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact.

FLOOD HAZARD

According to the Federal Emergency Management Agency *Flood Insurance Rate Map Los Angeles County, California and Incorporated Areas, Map No. 06037C1955F* and General Plan EIR Exhibit 4.7-2, *Flood Zone Map*, the project site is located outside of the 100-year flood hazard area.[2] No impacts would occur in this regard.

TSUNAMI

A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. The project site is located approximately 4.6 miles inland from the Pacific Ocean and is located at a sufficient distance so as not to be subject to tsunami impacts. No impacts would occur in this regard.

SEICHE

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. The project site is not in the vicinity of a reservoir, harbor, lake, or storage tank capable of creating a seiche. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The *Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) establishes water quality standards for ground and surface waters within the Los Angeles region, which includes the City, and is the basis for the Los Angeles RWQCB's regulatory programs.

The 2014 Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans (GSPs) or prepare an alternative to a groundwater sustainability plan. The project is located within the Coastal Plain of Los Angeles – West Coast groundwater basin, which is designated as a Very Low priority basin.[3] As a result, there is no groundwater sustainability plan established for the basin. It is acknowledged that the Water Replenishment District of Southern California developed the *Groundwater Basins Master Plan* (GBMP), which identifies projects and programs to enhance basin replenishment, increase reliability of groundwater resources, and improve and protect groundwater quality in the Los Angeles West Coast and Central groundwater basins.[4] As concluded in Response 4.10(b), the proposed project would not substantially increase water demands above existing conditions and would not substantially deplete groundwater supplies or interfere with groundwater recharge. As a result, the proposed project would not conflict with or obstruct with the projects or programs identified in the GBMP. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

2 Federal Emergency Management Agency, *Flood Insurance Rate Map Los Angeles County, California and Incorporated Areas, Map No. 06037C1935F, Panel 1955 of 2350*, September 26, 2008.

3 California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, https://gis.water.ca.gov/app/bp-dashboard/final/, accessed February 3, 2020.

4 Water Replenishment District of Southern California, *Groundwater Basins Master Plan*, September 2016.

This page intentionally left blank.

4.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				✓
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			✓	

a) Physically divide an established community?

No Impact. Factors that could physically divide a community include, but are not limited to:

- Construction of major highways or roadways;
- Construction of storm channels;
- Closing bridges or roadways; and
- Construction of utility transmission lines.

The key factor with respect to this threshold is the potential to create physical barriers that change the connectivity between areas of a community to the extent that persons are separated from other areas of the community. The proposed project would not physically divide an established community, as the project is surrounded predominantly by commercial, light industrial, heavy industrial, and business park uses, and would result in the construction of a warehousing/industrial development on-site similar to the surrounding community. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact.

GENERAL PLAN CONSISTENCY

Based on the General Plan *Land Use Map*, the project site is designated Business Park (BP). The BP designation is intended to support commercial, business park, and limited industrial uses. As noted in Section 2.0, *Project Description*, a General Plan Amendment would be required to change the site's land use designation from BP to Light Industrial (LI) in order to ensure consistency between the proposed warehousing/industrial development and the General Plan. The LI designation is intended to provide for a wide variety of industrial uses and to limit those involving hazardous or nuisance effects. This designation typically includes manufacturing, research and development, wholesaling, and warehousing, with a very limited amount of supportive retail and services uses. The proposed project would be utilized for warehouse and manufacturing uses with supporting offices and truck loading docks. Thus, with approval of the project's General Plan Amendment, the project would not conflict with the intent of the proposed LI designation. Table 4.11-1, *Project Consistency with Applicable General Plan Land Use Element Policies*, analyzes the project's consistency with applicable goals and policies in the General Plan Land Use Element.

Table 4.11-1
Project Consistency with Applicable General Plan Land Use Element Policies

Applicable General Plan Land Use Element Policies	Project Consistency Analysis
Policy LU-7.1: Periodically review, and amend if necessary, the City's Zoning Ordinance to ensure the compatibility of uses allowed within each zoning district.	Consistent. As noted under "Zoning Code Consistency," a Zone Change would be required to modify the site's zoning from Manufacturing, Heavy with a Design Overlay (MH-D) to Manufacturing, Light with a Design Overlay (ML-D). The proposed zoning would be consistent with the vacant property to the east of the project site that is also zoned ML-D.
Policy LU-7.2: Locate truck intensive uses in areas where the location and circulation pattern will provide minimal impacts on residential and commercial uses.	Consistent. The proposed warehousing/industrial facility is located in an area of the City which supports a mixture of commercial (automotive dealership), light industrial, heavy industrial, and business park uses. The project has been sited to take advantage of nearby regional transportation routes (i.e., Interstate 405 [I-405]) and avoid impacts to locally serving residential and commercial areas. Thus, truck trips generated by the project would not adversely impact residential and commercial uses.
Policy LU-12.3: Review landscape plans for new development to ensure that landscaping relates well to the proposed land use, the scale of structures, and the surrounding area.	Consistent. Exhibit 2-5, *Conceptual Landscape Plan*, illustrates the project's conceptual landscape plan. The landscape plan would be reviewed and approved by City staff during the plan check review process to ensure the proposed landscaping is consistent with the proposed warehousing/industrial use, building scale, and surrounding area.
Policy LU-12.5: Improve City appearance by requiring landscaping to screen, buffer and unify new and existing development. Mandate continued upkeep of landscaped areas.	Consistent. The proposed project would include landscaping improvements, including variety of ornamental trees, shrubs, accents, and groundcover; refer to Exhibit 2-5. As noted in Section 4.1, *Aesthetics*, the landscaping improvements proposed along the project's frontage at East 223rd Street would include layered groundcover, shrub masses, street trees, as well as a continuous screen shrub hedge to soften project hardscapes and screen public views of the project site. The project Applicant would be responsible for maintaining the landscaped areas.
Policy LU-13.4: Encourage architectural variation of building and parking setbacks along the streetscape to create visual interest, avoid monotony and enhance the identity of individual areas. Encourage pedestrian orientation by appropriate placement of buildings.	Consistent. The proposed project has been designed to locate truck-intensive activities within the interior of the project site rather than along the project's frontage to enhance visual interest and shield project operations. Landscaping would be installed along the project's frontage to enhance visual interest and avoid monotony; refer to Response to Policy LU-12.5.
Policy LU-13.5: Continue to require landscaping treatment along any part of a building site which is visible from City streets.	Consistent. Refer to response to Policy LU-12.5.
Policy LU-13.7: Ensure proper maintenance of parkways along arterial streets and landscaping of private property visible from the public right-of-way.	Consistent. Refer to response to Policy LU-12.5.
Policy LU-14.2: Require new commercial or industrial development adjacent to and visible from freeways and freeway ramps to incorporate full architectural and landscape treatment of the building on the freeway side.	Consistent. Refer to response to Policy LU-13.4. Although the project would not be highly visible from freeway travelers, the proposed project would include architectural and landscape treatment along the project frontage (which is directed toward I-405). In addition to Exhibit 2-5 illustrating proposed landscaping, Exhibit 2-4a, *Proposed Elevations – Building A* and Exhibit 2-4b, *Proposed Elevations – Building B*, depict proposed architectural treatment that might be visible from I-405.

Source: City of Carson, *Carson General Plan Land Use Element*, 2004.

As analyzed in Table 4.11-1, the project would be consistent with applicable General Plan policies and impacts would be less than significant.

ZONING CODE CONSISTENCY

According to the *City of Carson Zoning Map*, the project is zoned MH-D. The MH zone is created primarily for industrial uses acceptable within the community, with provisions for controlling any adverse effects upon the more sensitive areas of the City. The D Overlay allows for special site plan and design review for selected areas throughout the City. As noted in Section 3.0, the project would require approval of a Zone Change to modify the project site's zoning from MH-D to Manufacturing, Light with a Design Overlay (ML-D). The ML zone is created primarily for small and medium size industrial uses which are not likely to have adverse effects upon each other or upon neighboring residential and commercial zones. Thus, with approval of the project's Zone Change, the project would not conflict with the ML-D zone. Table 4.11-2, *Light Manufacturing Zone Development Standards Consistency Analysis*, details the project's consistency with applicable ML zone development standards.

Table 4.11-2
Light Manufacturing Zone Development Standards Consistency Analysis

Development Standard	ML Zoning Requirement	Proposed Project	Does Project Satisfy Requirement?
Setbacks			
Front Yard	25 feet or 25 percent of the lot depth, whichever is less	64 feet	Yes
Side Yard	10 feet if abutting a street; 10 percent of lot width if abutting residential (at least five feet but not greater than 10 feet); or No setback required if abutting non-residential zone and building height is not over 50 feet	No setback required as project abuts non-residential zone and building height is less than 50 feet	N/A
Rear Yard	10 percent of lot width if abutting residential (at least five feet but not greater than 10 feet); or No setback required if abutting non-residential zone and building height is not over 50 feet	No setback required as project abuts non-residential zone and building height is less than 50 feet	N/A
Minimum Lot Area	20,000 square feet	622,908 square feet	Yes
Minimum Lot Width	100 feet	914 feet	Yes
Maximum Building Height	No maximum height limit	34 to 42 feet	Yes
Maximum Roof Mounted Structures/ Equipment Height	10 feet above roof, measures from point of attachment	Roof-mounted structures/equipment (i.e., heating, ventilation, and air conditioning [HVAC] equipment) is anticipated to range from 4 to 5 feet	Yes
Mechanical Equipment	Shall not be enclosed within a building and shall be screened from view from adjoining public streets or walkways	HVAC equipment would be roof-mounted and screened from public view via parapets	Yes
Parking Spaces	Office: 1 space per 300 square feet Warehouse: 1 space per 1,500 square feet	387 spaces provided (196 spaced required)	Yes

Development Standard	ML Zoning Requirement	Proposed Project	Does Project Satisfy Requirement?
Street Frontage/ Access	Required vehicular access directly from public street/alley and with street frontage of at least 100 feet	Vehicular access provided via three full access driveways along East 223rd Street. The project includes a total street frontage of approximately 1,057 feet.	Yes
Maximum Wall Height	50 feet	Six-foot-high tube steel wrought-iron look fencing is proposed along the east, south, and west project boundaries	Yes

Source: City of Carson, *Carson Municipal Code, current through 19-1936*, passed September 3, 2019.

Based on the analysis above, the proposed project would not conflict with the General Plan or applicable Municipal Code regulations. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

4.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				✓
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?				✓

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No Impact. According to the General Plan EIR, no known mineral resources are located within the City. In addition, according to the State Division of Mines and Geology, no lands within the City have been identified to contain significant aggregate resources.[1] No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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. Refer to Response 4.12(a).

Mitigation Measures: No mitigation is required.

[1] California Department of Conservation, *Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the San Gabriel Valley Production-Consumption Region, Los Angeles County, California*, 2010.

This page intentionally left blank.

4.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
b. Generation of excessive groundborne vibration or groundborne noise levels?		✓		
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air, and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear de-emphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately three dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between three dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of three dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.

REGULATORY FRAMEWORK

Local

Carson General Plan

The General Plan includes interior and exterior noise standards as summarized in Table 4.13-1, *Interior and Exterior Noise Standards*. Table 4.13-1 shows standards and criteria that specify acceptable limits of noise for various land uses throughout Carson.

Table 4.13-1
Interior and Exterior Noise Standards

Type		CNEL	
Categories	**Uses**	**Interior[1,3]**	**Exterior[2,4]**
Residential	Single family Duplex, Multiple Family	45 – 55	50 – 60
	Mobile Home	45	65
Commercial Industrial Institutional	Hotel, Motel, Transient Lodging	45	—
	Commercial Retail, Bank, Restaurant	55	—
	Office Building, Research and Development, Professional Offices, City Office Building	50	—
	Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	—
	Gymnasium (Multipurpose)	50	—
	Sports Club	55	—
	Manufacturing, Warehousing, Wholesale, Utilities	65	—
	Movie Theaters	45	—
Institutional	Hospital, Schools Classrooms	45	65
	Church, Library	45	—
Open Space	Parks	—	65

Notes: CNEL = community noise equivalent level

1. Indoor environment includes bedrooms, living areas, bathrooms, toilets, closets, and corridors.
2. Outdoor environment is limited to private yards of single family residences; multi-family private patios or balconies that are served by a means of exist from inside the dwelling; balconies six feet deep or less are exempt; mobile home parks; park picnic areas; and school playgrounds.
3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as required pursuant to Uniform Building Code Chapter 12, Section 1205.
4. Exterior noise levels should be such that interior noise levels do not exceed 45 CNEL.

Source: City of Carson, *Carson General Plan*, 2004.

City of Carson Municipal Code

Chapter 5 of the *City of Carson Municipal Code* (Municipal Code) contains noise control regulations. The City adopted the *Los Angeles County Noise Ordinance* as the City's Noise Control Ordinance in 1995. The Noise Control Ordinance, derived from *Los Angeles County Code* Section 12.08.390, *Exterior Noise Standards*, and Section 12.08.400, *Interior Noise Standards*, establishes exterior and interior noise standards to regulate operation intrusive noises within specific land use zones. These noise standards are summarized in Table 4.13-2, *Noise Ordinance Standards*.

Table 4.13-2
Noise Ordinance Standards

Noise Zone	Land Use (Receptor Property)	Time Interval	Noise Level (dBA)	
			Exterior	Interior
I	Noise Sensitive-Area	Anytime	45	—
II	Residential Properties	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	45 50	— —
III	Commercial Properties	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	55 60	— —
IV	Industrial Properties	Anytime	70	—
All Zones	Multi-family	10:00 p.m. to 7:00 a.m.	—	40
	Residential	7:00 a.m. to 10:00 p.m.	—	45

Notes: dBA = A-weighted decibel scale
Source: County of Los Angeles, Los Angeles County Code Section 12.08.490 and 12.08.400, November 7, 2019.

Municipal Code Section 5502(c), *Amendments to Noise Control Ordinance*, provides exterior noise standards that regulate construction noise near residential uses. Noise standards for non-scheduled, intermittent, short-term operations (less than 20 days), as well as standards for repetitively scheduled and relatively long-term construction operations (periods of 21 days or more) of equipment are summarized in Table 4.13-3, *Maximum Construction Noise Limits*.

Table 4.13-3
Maximum Construction Noise Limits

Construction Time		Maximum Allowed Noise Level (dBA)	
		Single Family Residential	Multi-Family Residential
Maximum noise levels for non-scheduled, intermittent, short-term operation of 20 days or less for construction equipment.	Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75	80
	Daily, except 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60	64
Maximum noise level for repetitively scheduled and relatively long-term operation of 21 days or more for construction equipment.	Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	65	70
	Daily, except 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	55	60

Notes: dBA = A-weighted decibel scale
Source: City of Carson, City of Carson Municipal Code Section 5502(c), current through Ordinance No. 19-1936, passed September 3, 2019.

EXISTING CONDITIONS

Stationary Sources

Noise sources in the project area include the use of mechanical equipment (use of heating, ventilation, and air conditioning [HVAC] units, etc.), railroad operations, truck deliveries, and parking lot noise (cars parking, open and closing doors, etc.) at industrial and commercial land uses surrounding the project site. The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Mobile Sources

The majority of the existing noise in the project area is generated from vehicle sources along Interstate 405 (I-405) and East 223rd Street. As shown in Table 4.13-4, *Existing Traffic Noise Levels*, mobile noise sources in the vicinity of the project site range from 61.0 to 81.9 dBA CNEL.

Table 4.13-4
Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Wilmington Avenue					
South of 223rd Street	21,900	65.0	216	100	-
223rd Street to I-405 On-Ramp	27,900	66.4	266	124	-
North of I-405 Off-Ramp	20,400	64.6	203	94	-
I-405					
West of Wilmington Avenue	258,000	80.7	2,398	1,113	517
Southbound On-Ramp at Wilmington Avenue	13,400	66.6	276	128	59
Northbound Off-Ramp at Wilmington Avenue	16,300	67.5	314	146	68
Northbound On-Ramp at Wilmington Avenue	16,300	67.5	314	146	68
Wilmington Avenue to Alameda Street	271,000	80.9	2,477	1,150	534
Southbound Off-Ramp at Alameda Street	12,400	66.3	262	122	56
Southbound On-Ramp at Alameda Street	12,400	66.3	262	122	56
Northbound Off-Ramp at Alameda Street	10,900	65.7	240	112	52
Northbound On-Ramp at Alameda Street	10,900	65.7	240	112	52
East of Alameda Street	281,000	81.9	2,875	1,335	619

Table 4.13-4 (continued)
Existing Traffic Noise Levels

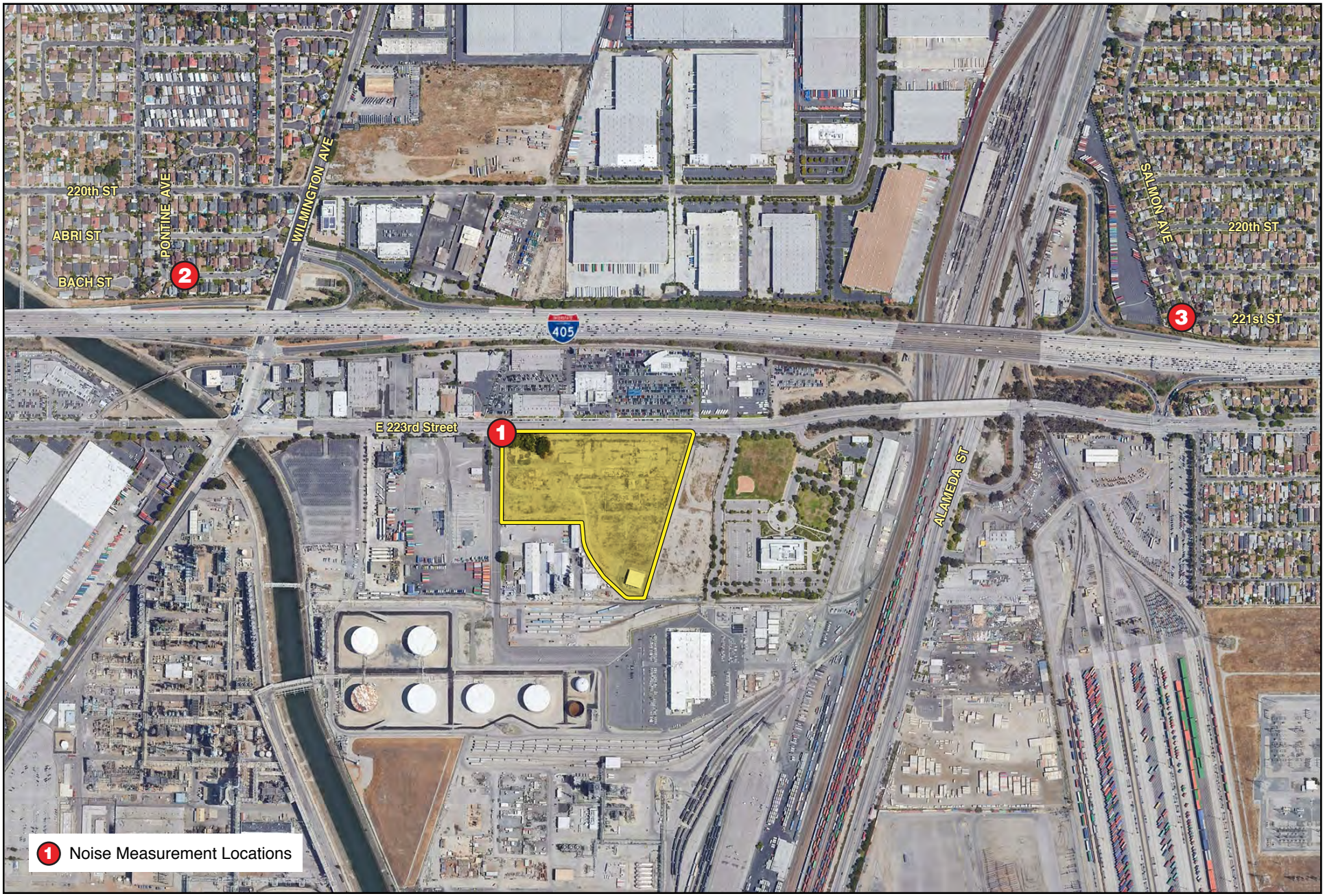
Roadway Segment	Existing Conditions				
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
East 223rd Street					
West of Wilmington Avenue	18,800	63.1	161	75	-
Wilmington Avenue to Alameda Street	19,200	63.2	163	76	-
Alameda Street to I-405 Off-Ramp	23,900	65.3	227	105	-
East of I-405 Off-Ramp	15,600	61.0	116	54	-
Alameda Street					
South of 223rd Street	32,700	66.7	280	130	60
223rd Street to I-405 On-Ramp	29,300	66.2	260	121	56
North of I-405 On-Ramp	25,300	65.6	236	109	51

Notes: ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level.
Source: Based on traffic data within the *Panattoni Project Traffic Impact Analysis* prepared by Ganddini Group, Inc., dated June 3, 2020; refer to Appendix F, *Traffic Impact Analysis*.

Mobile source noise was modeled using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108), which incorporates several roadway and site parameters. The model does not account for ambient noise levels. Noise projections are based on modeled vehicular traffic as derived from the *Panattoni Project Traffic Impact Analysis* (Traffic Impact Analysis) prepared by Ganddini Group, Inc. (dated June 3, 2020); refer to Appendix F, *Traffic Impact Analysis and VMT Analysis*. A 45-mile per hour average vehicle speed along Wilmington Avenue, a 65-mile per hour average vehicle speed along I-405, a 40-mile per hour average vehicle speed along East 223rd Street, and a 45-mile per hour average vehicle speed along Alameda Street were assumed for existing conditions based on empirical observations and posted maximum speeds. Average daily traffic estimates were obtained from the Traffic Impact Analysis.

Noise Measurements

In order to quantify existing ambient noise levels in the vicinity of the project site, four noise measurements were taken on February 25, 2020; refer to Exhibit 4.13-1, *Noise Measurement Locations* and Table 4.13-5, *Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day.



Source: Google Earth Pro, April 2020

NOT TO SCALE

Michael Baker INTERNATIONAL

Project Site

04/2020 JN 176815

PANATTONI PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Noise Measurement Locations

Exhibit 4.13-1

Table 4.13-5
Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Peak (dBA)	Time
1	Northwest corner of project site, along East 223rd Street.	72.7	57.6	86.1	108.6	09:46 a.m.
2	Along East Bach Street, approximately 81 feet from Pontine Avenue.	58.1	52.2	75.9	100.8	10:55 a.m.
3	Intersection of South Salmon Avenue and East 221st Place.	60.9	77.0	51.0	95.9	11:14 a.m.

Source: Michael Baker International, February 25, 2020.

Meteorological conditions were sunny, cool temperatures, with light wind speeds (0 to 3 miles per hour), and low humidity. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for sound level meters. The results of the field measurements are included in Appendix E, *Noise Data*.

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

Less Than Significant Impact. It is difficult to specify noise levels that are generally acceptable to everyone; noise that is considered a nuisance to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions.

CONSTRUCTION

Construction activities would be the same for the Warehouse and Manufacturing Option and Warehouse Only Option; thus, the construction noise analysis below is applicable to both options.

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., demolition, site preparation, grading, paving, building construction, and architectural coatings). Noise generated by construction equipment, including graders and excavators, can reach high levels. During construction, exterior noise levels could affect the residential uses in the vicinity of the project site. Specifically, project construction could occur as close as approximately 1,509 feet from existing residential structures to the northwest of the project site.

The project proposes the construction of a 292,400-square foot warehousing/industrial development. Construction of the proposed project would occur over approximately 13 months and would include demolition, grading, building construction, paving, and architectural coating. Groundborne noise and other types of construction-related noise impacts would typically occur during the grading construction phase and have the potential to create the highest levels of noise. The primary construction equipment noise sources used during construction would be during earthwork activities (use of graders and scrapers) and building construction (use of excavators, tractors/loaders/backhoes, and a crane). Graders typically generate the highest noise levels, emitting a maximum noise level of approximately 85 dBA at a distance of 50 feet. Point sources of noise emissions are atmospherically attenuated by a factor of 6 dBA per doubling of distance. This assumes a clear line-of-sight and no other machinery or equipment noise that would mask project construction noise. The shielding of buildings and other barriers that interrupt line-of-sight conditions further reduce noise levels from point sources.

Construction noise levels in the project vicinity would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment in the receptor's vicinity. Construction generally occurs in several discrete phases, with each phase requiring different equipment with varying noise characteristics. These phases alter the characteristics of the noise environment generated on the project site and in the surrounding community for the duration of the construction process.

The City has established noise standards for construction activity in Municipal Code Section 5502(c). Pursuant to Municipal Code Section 5502(c), maximum construction noise levels should not exceed the noise standard of 65 dBA during normal daytime hours (between 7:00 a.m. and 8:00 p.m.).[1] Construction noise impacts generally happen when construction activities occur in areas immediately adjoining noise sensitive land uses, during noise sensitive times of the day, or when construction durations last over extended periods of time. The closest existing sensitive receptors are residences located approximately 1,509 feet northwest of proposed construction areas. At this distance, the maximum construction noise levels from graders would be approximately 55 dBA which would not exceed the City's construction noise standard of 65 dBA. In addition, the I-405 and structures to the northwest of the project site would further attenuate construction noise levels. A less than significant impact would occur in this regard.

OPERATIONS

Off-Site Mobile Noise

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, a doubling of traffic volumes would result in a 3 dB increase in traffic noise levels, which is barely detectable by the human ear.[2] Based on the Traffic Impact Analysis, the Warehouse and Manufacturing Option is projected to generate a total of approximately 788 trips per day (i.e., approximately 622 car trips and 166 truck trips), and the Warehouse Only Option is projected to generate a total of approximately 509 trips per day (i.e., approximately 405 car trips and 104 truck trips). As the Warehouse and Manufacturing Option would generate the most trips per day, the following analysis presents the worst-case scenario.

Project-generated vehicle trips would occur nearest to sensitive receptors along Alameda Street (North of I-405 Off-Ramp), 223rd Street (East of I-405 On-Ramp), and Wilmington Avenue (North of I-405 Off-Ramp).[3] Table 4.13-6, *Existing and Project Traffic Volumes*, depicts traffic volumes along roadway segments nearest to sensitive receptors in the project vicinity. As shown in Table 4.13-6, existing average daily traffic (ADT) along Alameda Street (North of I-405 Off-Ramp) is approximately 25,300 vehicles per day, along East 223rd Street (East of I-405 On-Ramp) is approximately 15,600 vehicles per day, and along Wilmington Avenue (North of I-405 Off-Ramp) is approximately 20,400 vehicles per day. As such, project-generated vehicle trips would not double existing traffic volumes along local roadways and any increase in traffic noise would be imperceptible. Impacts would be less than significant in this regard.

[1] Project construction would not occur at night (8:00 p.m. to 7:00 a.m.), on Sundays, or legal holidays.

[2] U.S. Department of Transportation, *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, updated August 24, 2017, https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm, accessed on April 13, 2020.

[3] Ganddini Group, Inc., Panattoni Project Traffic Impact Analysis Figure 13, Project Trip Distribution (Cars) and Figure 14, Project Trip Distribution (Trucks), dated June 3, 2020.

Table 4.13-6
Existing and Project Traffic Volumes

Segment	Existing ADT	Project-generated Car Trips	Project-generated Truck Trips	Total Project-generated Trips	Doubling of Traffic Volumes?
Daily Trips					
Alameda Street (North of I-405 Off-Ramp)	25,300	62	17	79	No
East 223rd Street (East of I-405 On-Ramp)	15,600	152	42	197	No
Wilmington Avenue (North of I-405 Off-Ramp)	20,400	93	17	110	No

Notes: ADT = Average Daily Traffic

Source: Based on traffic data within the *Panattoni Project Traffic Impact Analysis* prepared by Ganddini Group, Inc., dated June 3, 2020; refer to Appendix F.

On-Site Operational Noise

Stationary noise sources associated with the Warehouse and Manufacturing Option and Warehouse Only Option would include mechanical equipment, slow moving trucks, and parking activities. These noise sources are typically intermittent and short in duration and would be comparable to existing sources of noise experienced at the light industrial uses in the project site vicinity. Further, all stationary noise activities would be required to comply with the City's Noise Ordinance and the California Building Code requirements pertaining to noise attenuation. A discussion of the project's stationary noise sources is provided below.

Mechanical Equipment

Heating, ventilation, and air conditioning (HVAC) units would be installed at the project site. Typically, mechanical equipment, such as HVAC units, generate noise levels of 55 dBA at 50 feet from the source.[4] As noted above, noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance from the source. HVAC units would be located greater than 1,509 feet from the nearest sensitive receptor (i.e. residences to the northwest of the project site across I-405). As such, noise levels from the HVAC units could reach approximately 25 dBA at the nearest residences to the northwest without an enclosure or noise attenuation features. Therefore, the City's daytime (50 dBA) and nighttime (45 dBA) noise standards would not be exceeded as a result of HVAC units at the project site. Impacts would be less than significant in this regard.

Slow-Moving Trucks

On-site truck operations would be considered a mobile noise source subject to the City's noise regulations. It is anticipated that most operations would be conducted during daytime business hours (assumed to be 7:00 a.m. to 6:00 p.m.); however, some degree of operation would take place between 6:00 p.m. and 7:00 a.m. Therefore, this analysis assumes the project would operate 24 hours per day, seven days per week as a worst-case scenario. The predominant noise source during on-site operations would be from on-site truck movements and idling.

Based on the Traffic Impact Analysis, the proposed project would generate up to 166 truck trips per day for the Warehouse and Manufacturing Option and up to 104 truck trips per day for the Warehouse Only Option. Typically,

[4] U.S. Environmental Protection Agency, Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances, December 1971.

slow movements from these trucks can generate a maximum noise level of approximately 79 dBA at a distance of 50 feet.[5]

For the purposes of this analysis, the distance to the nearest receptor was measured from the closest on-site truck-movement area (located in the northwest portion of the project site) to the property line of the receptor being analyzed. The nearest sensitive receptor (i.e., a residence to the northwest of the project site) would be located approximately 1,581 feet northwest of slow-moving trucks at the project site. At this distance, on-site noise levels from slow-moving trucks would be approximately 49 dBA. In addition, the I-405 and structures to the northwest of the project site would further attenuate slow-moving truck noise levels. The structures to the northwest of the project site would attenuate slow-moving truck noise levels by approximately 13 dBA, resulting in an exterior noise level of approximately 36 dBA.[6] Therefore, the anticipated noise levels from slow-moving trucks would not exceed the City's daytime (50 dBA) and nighttime (45 dBA) noise standards at the nearest residential receptors. Interior noise levels from slow-moving trucks at the nearest residence would be attenuated by 20 dBA, decreasing interior noise levels to approximately 16 dBA,[7] which is below the City's allowable interior standard of 45 dBA. Therefore, slow-moving truck noise levels would not exceed the City's applicable noise standards at the nearest off-site receptor, and a less than significant impact would occur in this regard.

Back-Up Alarms

The project would also provide a total of 54 truck loading docks along the southern perimeters of Buildings A and B, and along the northern perimeter of Building C. Medium and heavy-duty trucks reversing into truck loading docks would produce noise from back-up alarms (also known as back-up beepers). Back-up beepers produce a typical volume of 97 dBA at one meter (i.e., 3.28 feet) from the source.[8] The property line of the nearest sensitive receptor (i.e., a residence) would be located approximately 1,581 feet[9] northwest of the truck loading docks where trucks would be reversing/parking. At this distance, exterior noise levels from back-up beepers would be approximately 43 dBA. In addition, the I-405 and structures to the northwest of the project site would further attenuate back-up beeper noise levels. The structures to the northwest of the project site would attenuate back-up beeper noise levels by approximately 13 dBA, resulting in an exterior noise level of approximately 30 dBA.[10] Therefore, the anticipated noise levels from back-up beepers would not exceed the City's daytime (50 dBA) and nighttime (45 dBA) noise standards at the nearest residential receptors. Thus, noise impacts from back-up beepers associated with the project would be less than significant.

Parking Areas

A total of 389 parking spaces would be provided for employees and visitors in surface parking lots located along the project site and building perimeters. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the

5 Elliot H. Berger, Rick Neitzel, and Cynthia A. Kladden, Noise Navigator Sound Level Database with Over 1700 Measurement Values, July 6, 2010.

6 Federal Highway Administration, *The Audible Landscape: A Manual for Highway Noise and Land Use*, https://www.fhwa.dot.gov/ENVIRonment/noise/noise_compatible_planning/federal_approach/audible_landscape/al04.cfm, accessed April 15, 2020.

7 Assuming a 20-dBA outdoor-indoor noise attenuation rate per the U.S. Department of Housing and Urban Development, The Noise Guidebook, page 14, March 2009.

8 Environmental Health Perspectives, *Vehicle Motion Alarms: Necessity, Noise Pollution, or Both?* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018517/, accessed April 13, 2020.

9 This represents the closest distance between the noise source and the "outdoor environment" at the nearest off-site receptor.

10 Federal Highway Administration, *The Audible Landscape: A Manual for Highway Noise and Land Use*, https://www.fhwa.dot.gov/ENVIRonment/noise/noise_compatible_planning/federal_approach/audible_landscape/al04.cfm, accessed April 15, 2020.

instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys may be an annoyance to noise-sensitive receptors. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 4.13-7, *Typical Maximum Noise Levels Generated by Parking Lots*.

Table 4.13-7
Typical Maximum Noise Levels Generated by Parking Lots

Noise Source	Maximum Noise Levels at 50 Feet from Source
Car door slamming	61 dBA L_{eq}
Car starting	60 dBA L_{eq}
Car idling	53 dBA L_{eq}

Source: Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.

As shown in Table 4.13-7, parking lot noise levels would range between 53 dBA and 61 dBA at a distance of 50 feet. The property line of the nearest sensitive receptor (i.e., a residence) is located approximately 1,509 feet northwest of the nearest proposed parking area on northwestern portion of the project site. At this distance, parking lot noise levels would range between 23 dBA and 31 dBA. In addition, the I-405 and structures to the northwest of the project site would further attenuate parking lot noise levels. Therefore, parking lot noise levels would not exceed the City's daytime (50 dBA) and nighttime (45 dBA) noise standards at the nearest residential receptors, and a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact With Mitigation Incorporated. Construction activities would be the same for the Warehouse and Manufacturing Option and Warehouse Only Option; thus, the construction noise analysis below is applicable to both options.

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The Caltrans *Transportation and Construction Vibration Manual* identifies various vibration damage criteria for different building classes. As the nearest structures are industrial buildings located approximately ten feet to the west and south of project construction activities, the architectural damage criterion for continuous vibrations at modern industrial/commercial buildings of 0.5 inch-per-second peak particle velocity (PPV) is utilized. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural.

The highest degree of groundborne vibration would be generated during the paving construction phase due to the operation of a vibratory roller. The nearest structures would be the Poly One Corporation industrial structures located

approximately ten feet to the south and west of project construction activities. Based on the Federal Transit Administration (FTA) data, vibration velocities from vibratory roller operations would be 0.83 inch-per-second PPV at ten feet from the source of activity.[11] Therefore, vibration from construction activities experienced at the closest structure would exceed the 0.5 inch-per-second PPV Caltrans significance threshold. Thus, groundborne vibration generated from vibratory roller operations would be considered potentially significant. Mitigation Measure NOI-1 would require the use of a static (non-vibratory) roller, as an alternative to vibratory rollers, within 15 feet of the Poly One Corporation industrial structures located to the south and west of the project site (Assessor's Parcel Number [APN] 7315-008-022) to ensure vibration levels would not exceed the 0.5 inch-per-second PPV significance threshold. Thus, impacts would be less than significant with implementation of Mitigation Measure NOI-1.

Mitigation Measures:

NOI-1 Prior to the initiation of construction, the Applicant shall prepare a paving control plan to ensure that the paving process does not result in damage to the western and southern industrial structures. The paving control plan shall be subject to the Building and Safety Department's approval prior to issuance of a grading permit. To reduce groundborne vibration levels, the paving control plan shall stipulate that static (non-vibratory) rollers shall be used as an alternative to vibratory rollers within 15 feet of the western and southern Poly One Corporation industrial structures (Assessor's Parcel Number [APN] 7315-008-022).

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

No Impact. The nearest airport to the project site is the Long Beach Municipal Airport located approximately 4 miles to the east at 4100 Donald Douglas Drive, in the City of Long Beach. According to the Los Angeles County Airport Land Use Commission, the project site is located outside of the Airport Influence Area for the Long Beach Municipal Airport.[12] Additionally, the project site is not located within the vicinity of a private airstrip or related facilities.[13] Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels associated with aircraft. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

[11] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

[12] Los Angeles County Airport Land Use Commission, *Airport Influence Area – Long Beach Airport*, http://planning.lacounty.gov/assets/upl/project/aluc_airport-long-beach.pdf, dated May 13, 2003.

[13] The Goodyear Blimp Airship Base (situated approximately 3 miles to the northwest of the project site) is not considered an airport, as blimp operations are only infrequent compared to aircraft activity at airports, and produce much lower sound levels than traditional aircraft.

4.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			✓	

a) Induce substantial unplanned 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. A project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure. As described in Section 2.0, *Project Description*, the project would require approval of a General Plan Amendment to change the site's land use designation from Business Park (BP) to Light Industrial (LI) in order to ensure consistency between the proposed warehousing/industrial development and the General Plan. The project would also require approval of a Zone Change to modify the project site's zoning from Manufacturing, Heavy with a Design Overlay (MH-D) to Manufacturing, Light with a Design Overlay (ML-D). As such, project implementation would result in different population projections compared to adopted local and regional plans, including those identified for the City's General Plan and the Southern California Association of Governments [SCAG] Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Employment opportunities resulting from the proposed project could directly increase the City's population, as employees (and their families) may choose to relocate to the City. It would be highly speculative to estimate the number of future employees who would relocate to the City, as many factors influence personal housing location decisions (i.e., family income levels and the cost and availability of suitable housing in the local area). Further, many project employees could already live in the City. The project would employ up to 124 full-time employees.[1] Based on a "worst case" scenario of 124 full-time employees relocating to the City of Carson and the City's average household size of 3.61, project implementation would result in a population increase of approximately 448 persons.[2] Therefore, population growth associated with the project, should all future employees live outside of the City and have to relocate into the City, would represent only a 0.48 percent increase over the City's 2019 population of 93,604 persons.[3] Thus, these potential population increases, although highly conservative, would be less than significant.

[1] 124 full-time employees were calculated based on a worst-case average of 18.49 employees per acre of light manufacturing uses. Source: The Natelson Company, Inc., *Employment Density Study Summary Report*, Table 4A (Derivation of Square Feet per Employee Based On: Average Employees per Acre, Average FAR, Los Angeles County), October 31, 2001.

[2] California Department of Finance Demographic Research Unit, *Report E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2019, with 2010 Benchmark*, Sacramento, California, May 1, 2019.

[3] Ibid.

Potential population growth impacts are also assessed based on a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. The SCAG growth forecasts estimate the City's population to reach 107,900 persons by 2040, representing a total increase of 15,900 persons between 2012 and 2040.[4] SCAG's regional growth forecasts are based upon long-range development assumptions (i.e., General Plans) of the relevant jurisdiction. The project's anticipated population increase (conservatively assumed at 448 persons) would represent a 0.42 percent increase over the City's anticipated 2040 population, which would be considered less than significant.

Although the project would result in direct population growth, the proposed project would not induce substantial unplanned population growth exceeding existing local conditions (0.48 percent increase over the City's 2019 population) and/or regional populations projections (0.42 percent of the total projected 2040 population of the City). As a result, the project would result in less than significant impacts to unplanned population growth.

Mitigation Measures: No mitigation is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. There are no existing residents or housing on-site. Thus, project implementation would not displace existing people or housing or necessitate the construction of replacement housing elsewhere. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[4] Southern California Association of Governments, *2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction*, https://www.scag.ca.gov/Documents/2016_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf, accessed February 11, 2020.

4.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
1) Fire protection?			✓	
2) Police protection?			✓	
3) Schools?			✓	
4) Parks?			✓	
5) Other public facilities?			✓	

a) 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:

1) Fire protection?

Less Than Significant Impact. The County of Los Angeles Fire Department (LACoFD) provides fire protection services to the City and project site. According to the General Plan EIR, there are six primary fire stations that provide both fire and emergency services to the City, four of which are within the City's boundaries. The closest fire station to the project site is Station #127, located approximately 0.05-mile northwest at 2049 East 223rd Street.

The proposed project would create an increased demand for fire protection services, compared to the existing condition. As concluded in Section 4.11, *Land Use and Planning*, the project would result in nominal direct population growth (through employment generation). However, the project site was formerly developed with a heavy industrial polyvinyl chloride plant known as Stauffer Chemical Company. As the site was formerly developed with heavy industrial uses, the proposed light industrial uses would not induce substantial unplanned population growth beyond the site's former use. As a light industrial development, the proposed project would be consistent with land uses anticipated for the area; refer to Section 4.11. Furthermore, the overall project design would be subject to compliance with the requirements set forth in the 2019 California Fire Code (CFC), 2019 California Building Standards Code (CBC) and Municipal Code, *Chapter 1 Building Code*, and LACoFD requirements. The proposed driveways and interior vehicular circulation have been designed to meet the LACoFD turning radius requirements, as well as truck traffic. Seven new fire hydrants and 10-inch PVC fire water laterals would be installed around the building perimeters to connect to the existing utilities in East 223rd Street. As such, less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

2) Police protection?

Less Than Significant Impact. The Los Angeles County Sheriff's Department (LASD) provides sheriff protection services to the City and the project site. The project site is within the service area of the LASD Carson Station, which provides sheriff services to the City of Carson, and unincorporated County areas in Gardena, Torrance, and Rancho Dominguez. The Carson Station is located approximately 1.5 miles to the northwest of the project site at 21356 South Avalon Boulevard.

As discussed in Response 4.15 (a)(1) above, the proposed project is consistent with land uses in the area and would not induce substantial unplanned population growth. Thus, implementation of the project would not significantly increase demand for sheriff protection services provided by the LASD. In addition, the project would be subject to site plan review by the City prior to project approval to ensure that it meets City requirements in regard to safety (e.g., nighttime security lighting). Less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

3) Schools?

Less Than Significant Impact. The Los Angeles Unified School District (LAUSD) and the Compton Unified School District (CUSD) provides school services for the City of Carson. The project site is located within LAUSD. The LAUSD schools in the project vicinity include Del Amo Elementary (located at 21228 Water St, Carson), Andrew Carnegie Middle School (located at 21820 Bonita St, Carson), and Rancho Dominguez Preparatory School (located at 4110 Santa Fe Ave, Long Beach).[1]

The project would develop a light industrial facility, which could generate additional students in the project area (through employee generation); refer to Section 4.14. However, the proposed project would not significantly increase the need for school facilities, as the project is consistent with land uses in the area and would not result in substantial unplanned population growth. Furthermore, the project would be required to comply with Senate Bill (SB) 50 requirements, which allow school districts to collect impact fees from developers of new projects, including industrial construction. Pursuant to Section 65997 of the California Government Code, payment of statutory fees is the exclusive method of mitigating environmental effects related to the adequacy of school facilities when considering the approval or the establishment of conditions for the approval of a development project. Thus, upon payment of required fees by the project Applicant consistent with existing State requirements, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

4) Parks?

Less Than Significant Impact. The project does not propose new or physically altered parks or recreational facilities. According to the City of Carson Parks and Recreation Department, the City maintains 12 full service parks among other programs and services.[2] Several parks including the Calas Park (located at 1000 East 220th Street) and Friendship Mini-Park (located at 21930 South Water Street) are located in close proximity of the project site. As discussed above, the proposed project is consistent with land uses in the area and would not result in unplanned population growth. As a light industrial development, implementation of the project would not substantially increase demand for or use of

[1] Los Angeles Unified School District, *Local District South Map*, dated May 2015, https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/33/South.pdf.

[2] City of Carson, Community Services Parks and Recreation, *About Us*, https://ci.carson.ca.us/CommunityServices/Parks_Rec_AboutUs.aspx, accessed February 24, 2020.

existing local or regional park facilities. Moreover, the City adopted the Interim Development Impact Fee ("IDIF") Program on April 16, 2019; refer to Municipal Code *Article XI, Interim Development Impact Fees*. The IDIF Program requires payment of mitigation fees to offset the project's impacts on existing public facilities and demands for new facilities, such as parks. Thus, upon payment of the IDIF by the project Applicant, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

5) Other public facilities?

Less Than Significant Impact. As discussed above, the proposed project is consistent with land uses in the area and would not result in substantial unplanned population growth. As such, the project would not increase demand for other public facilities, such as libraries; refer to Responses 4.15(a)(1) through 4.15(a)(4). Less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

This page intentionally left blank.

4.16 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	
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?			✓	

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?

Less Than Significant Impact. Refer to Response 4.15(a)(4).

Mitigation Measures: No mitigation is required.

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?

Less Than Significant Impact. Refer to Response 4.15(a)(4).

Mitigation Measures: No mitigation is required.

This page intentionally left blank.

4.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			✓	
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?		✓		
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
d. Result in inadequate emergency access?		✓		

This section is primarily based upon the following technical studies:

- *Panattoni Project Traffic Impact Analysis, City of Carson* (Traffic Impact Analysis), prepared by Ganddini Group, Inc., dated June 3, 2020); and

- *Panattoni Warehouse Project: Vehicle Miles Traveled Analysis* (VMT Analysis), prepared by Fehr and Peers, dated May 19, 2020 (refer to Appendix F, *Traffic Impact Analysis and VMT Analysis*).

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law, which initiated a process to change transportation impact analyses completed in support of CEQA documentation. SB 743 eliminates level of service (LOS) as a basis for determining significant transportation impacts under CEQA and provides a new performance metric, vehicle miles travelled (VMT). A VMT-based analysis is thus provided below, in Response 4.17(b). However, the City of Carson General Plan has established a minimum acceptable performance standard of LOS D for roadway segment and peak hour intersection operations with the exception that the County of Los Angeles Congestion Management Program network may operate up to LOS E. In addition, as stated in the *Guide for the Preparation of Traffic Impact Studies*, the California Department of Transportation (Caltrans) "endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities."[1] Caltrans acknowledges this may not always be feasible and recommends consultation with Caltrans to determine the appropriate target LOS. For consistency with local requirements, this analysis defines LOS D as the minimum acceptable LOS for State Highway facilities. Thus, the following analysis evaluates the project's potential to conflict with adopted LOS performance standards near the project site. The following analysis scenarios are evaluated in this section:

- Existing Conditions;

[1] State of California Department of Transportation, Guide for the Preparation of Traffic Impact Studies, December 2002.

- Existing Plus Project;
- Opening Year (2021) Without Project Conditions; and
- Opening Year (2021) With Project Conditions.

The Traffic Impact Analysis is based on the traffic study guidelines, requirements, and adopted LOS performance standards for the City and Caltrans and is consistent with the Congestion Management Program for Los Angeles County.

STUDY AREA

The Traffic Impact Analysis identified the following signalized and unsignalized study intersections; refer to Traffic Impact Analysis Figure 2, *Project Location Map*. The study intersections are under the jurisdiction of the City of Carson and Caltrans.

1. Wilmington Avenue at Interstate 405 (I-405) Northbound Ramps – City of Carson and Caltrans;
2. Wilmington Avenue at I-405 Southbound Ramps – City of Carson and Caltrans;
3. Wilmington Avenue at 223rd Street – City of Carson;
4. Alameda Street at I-405 Northbound Ramps – City of Carson and Caltrans;
5. I-405 Southbound Ramps at 223rd Street – City of Carson and Caltrans;
6. Alameda Street (Connector) at 223rd Street – City of Carson;
7. East Project Driveway at 223rd Street – City of Carson;
8. Center Project Driveway at 223rd Street – City of Carson; and
9. West Project Driveway at 223rd Street – City of Carson.

Existing conditions intersection LOS calculations detailed below are based upon manual a.m. and p.m. peak hour turning movement counts obtained in February 2020 during typical weekday conditions. The weekday a.m. peak period was counted between 7:00 a.m. and 9:00 a.m., the weekday p.m. peak period was counted between 4:00 p.m. and 6:00 p.m. The actual peak hour within the peak period is the four consecutive 15-minute periods with the highest total volume when all movements are added together. Thus, the weekday p.m. peak hour at one intersection may be 4:45 p.m. to 5:45 p.m. if those four consecutive 15-minute periods have the highest combined volume. Intersection turning movement count worksheets are provided in Traffic Impact Analysis Appendix C, *Intersection Turning Movement Count Worksheets*.

To account for truck volumes, the peak hour intersection volume counts were collected by vehicle classification and converted into Passenger Car Equivalent (PCE) trips in accordance with PCE factors recommended by the San Bernardino Association of Governments (SANBAG) Congestion Management Program (1.5 PCEs for 2-axle trucks, 2.0 PCEs for 3-axle trucks, and 3.0 PCEs for trucks with 4 or more axles). Traffic Impact Analysis Figure 11, *Existing AM Peak Hour Intersection Turning Movement Volumes*, and Figure 12, *Existing PM Peak Hour Intersection Turning Movement Volumes*, show the existing a.m. and p.m. peak hour intersection turning movement volumes (in PCE). All subsequent figures showing roadway and intersection volumes are in PCE.

LOS CRITERIA

LOS is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection.

Intersection Capacity Utilization (ICU) Methodology

The City of Carson measures intersection performance using the Intersection Capacity Utilization (ICU) methodology in accordance with the parameters established by the *County of Los Angeles Traffic Impact Analysis Report Guidelines*

(December 2013). The ICU methodology compares the volume of traffic using the intersection to the capacity of the intersection. The resulting volume-to-capacity (V/C) ratio represents that portion of the total hourly capacity required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The ICU analysis methodology describes the operation of an intersection from LOS A (free-flow conditions) to LOS F (severely congested conditions) based on corresponding ranges of V/C at the intersection. Table 4.17-1, *ICU Intersection LOS and V/C Ranges*, details each LOS and corresponding V/C ratio range.

Table 4.17-1
ICU Intersection LOS and V/C Ranges

Level of Service	Volume to Capacity Ratio
A	0.000 – 0.600
B	0.601 – 0.700
C	0.701 – 0.800
D	0.801 – 0.900
E	0.901 – 1.000
F	> 1.000

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

Consistent with City of Carson requirements, the Traffic Impact Analysis uses the following input parameters for the ICU analysis: capacity of individual lanes be used in the ICU calculations is 1,600 vehicles per hour per lane for through and turn lanes, 2,880 vehicles per hour for dual left-turn lanes, and a total clearance adjustment of 10 percent (i.e., 0.10 added to critical V/C).

Highway Capacity Manual (HCM) Methodology

Unsignalized intersections within City of Carson and Caltrans jurisdiction are analyzed using the intersection delay methodology based on procedures contained in the HCM. The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding LOS. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to LOS based on the following thresholds:

The HCM analysis methodology describes the operation of an intersection using LOS A (free-flow conditions) to LOS F (severely congested conditions) based on corresponding ranges of stopped delay experienced per vehicle for signalized and unsignalized intersections; refer to Table 4.17-2, *HCM Intersection LOS and Delay Ranges*.

Table 4.17-2
HCM Intersection LOS and Delay Ranges

Level of Service	Average Control Delay Per Vehicle (seconds)	
	Signalized	Unsignalized
A	0.0 – 10.0	0.0 – 10.0
B	10.0 – 20.0	10.0 – 15.0
C	20.0 – 35.0	15.0 – 25.0
D	35.0 – 55.0	25.0 – 35.0
E	55.0 – 80.0	35.0 – 50.0
F	> 80.0	> 50.0

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

At intersections with traffic signal or all way stop control, LOS is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), LOS is determined by the average control delay for the worst individual movement (or movements sharing a single lane).

TRAFFIC IMPACT CRITERIA AND THRESHOLDS

The following are the jurisdictional performance criteria and thresholds of significance applicable to the study area.

City of Carson Adopted Performance Standards

As noted, the City of Carson General Plan has established the following minimum acceptable LOS D for roadway segment and peak hour intersection operations with the exception that the County of Los Angeles Congestion Management Program network may operate up to LOS E. Based on the County of Los Angeles guidelines, a project traffic impact at a signalized intersection is considered significant if the project related increase in the volume to capacity ratio equals or exceeds the thresholds shown in Table 4.17-3, *City of Carson Thresholds of Significance*.

Table 4.17-3
City of Carson Thresholds of Significance

Pre-Project Conditions		Project Increase in Volume to Capacity
Level of Service Without Project	Volume to Capacity	
C	0.71 to 0.80	≥ 0.04
D	0.81 to 0.90	≥ 0.02
E, F	0.91 or more	≥ 0.01

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

The Traffic Impact Analysis assumes for City of Carson unsignalized study intersections, a significant impact occurs if the LOS is deficient (either LOS E or F) and the intersection satisfies a traffic signal warrant.

Caltrans Adopted Performance Standards

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities. While Caltrans has not established traffic thresholds of significance, the Traffic Impact Analysis utilizes the following performance standard based on discussions with Caltrans staff:

- A significant project impact occurs at a State highway signalized study intersection when the addition of project-generated trips causes the peak hour LOS of the study intersection to change from acceptable operation (LOS A, B, C, or D) to deficient operation (LOS E or F).

EXISTING CONDITIONS

Table 4.17-4, *Existing Intersection Levels of Service*, summarizes the results of the LOS analysis for the study area intersections under existing conditions. As shown in Table 4.17-4, the study intersections are currently operating at an acceptable LOS (LOS D or better) during a.m. and p.m. peak hours.

Table 4.17-4
Existing Intersection Level of Service

Study Intersection		Traffic Control	AM Peak Hour		PM Peak Hour	
			V/C	LOS	V/C	LOS
1	Wilmington Avenue at I-405 Northbound Ramps	TS	0.639	B	0.714	C
2	Wilmington Avenue at I-405 Southbound Ramps	TS	0.870	D	0.761	C
3	Wilmington Avenue at 223rd Street	TS	0.710	C	0.722	C
4	Alameda Street at I-405 Northbound Ramps	TS	0.568	A	0.829	D
5	I-405 Southbound Ramps at 223rd Street	TS	0.547	A	0.558	A
6	Alameda Street (Connector) at 223rd Street	TS	0.565	A	0.840	D

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

City of Carson Roadway Regulations

Project Trip Generation

In order to accurately assess traffic conditions with the proposed project, trip generation estimates were developed for the project's Warehouse and Manufacturing Option and the Warehouse Only Option. Trip generation rates for the project are based on nationally recognized recommendations contained within the Institution of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. Trip generation rates utilized in the Traffic Impact Analysis are detailed in Table 4.17-5, *Project Trip Generation (Warehouse and Manufacturing Option)* and Table 4.17-6, *Project Trip Generation (Warehouse Only Option)*. Table 4.17-5 and Table 4.17-6 also show the project-generated vehicle trips separated into passenger cars and trucks (by number of axles) and converted to passenger car equivalent (PCE) trips. The total percentage of truck trips for warehousing land use was obtained from the *City of Fontana Truck Trip Generation Study* (August 2003) for the heavy warehouse land use. The total percentage of truck trips for manufacturing land use was obtained from the *City of Fontana Truck Trip Generation Study* for the light industrial land use. The total number of truck trips are converted into PCE trips based on PCE factors recommended by the *County of San Bernardino Congestion Management Program* (1.5 PCEs for 2-axle trucks, 2.0 PCEs for 3-axle trucks, and 3.0 PCEs for trucks with 4 or more axles).

Table 4.17-5
Project Trip Generation (Warehouse and Manufacturing Option)

Land Use/Vehicle Type	Source	Trip Generation Rater per TSF						
		AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Warehouse	ITE 150	77%	23%	0.17	27%	73%	0.19	1.74
Percent Cars	[a]	--	--	62.86%	--	--	64.38%	79.57%
Percent Trucks	[a]	--	--	37.14%	--	--	35.62%	20.43%
Car Trips per TSF		0.082	0.025	0.107	0.033	0.089	0.122	1.385
Truck Trips per TSF		0.049	0.015	0.064	0.018	0.049	0.067	0.355
Manufacturing	ITE 130	77%	23%	0.62	31%	69%	0.67	3.93
Percent Cars	[b]	--	--	60.53%	--	--	76.83%	78.60%
Percent Trucks	[b]	--	--	39.47%	--	--	23.17%	21.40%
Car Trips per TSF		0.289	0.086	0.375	0.160	0.355	0.515	3.089
Truck Trips per TSF		0.188	0.056	0.244	0.048	0.107	0.155	0.841

Vehicle Trips Generated

Land Use/Vehicle Type	Quantity (TSF)	Land Use in Buildings	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Warehouse									
Cars	165.200	1, 2 & 3	14	4	18	5	15	20	229
Trucks			8	3	11	3	8	11	59
Manufacturing									
Cars	127.200	1, 2 & 3	37	11	48	20	46	66	393
Trucks			24	7	31	6	14	20	107
TOTAL VEHICLE TRIPS GENERATED			**83**	**25**	**108**	**34**	**83**	**117**	**788**

Passenger Car Equivalents (PCE) Trips Generated

Land Use/Vehicle Type	Quantity (TSF)	Truck Percent[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Warehouse	165.200	--							
Cars	--	--	14	4	18	5	15	20	229
Trucks	PCE Factor[2]	--							
2-Axle Trucks	1.5	16.95%	2	1	3	1	2	3	15
3-Axle Trucks	2.0	22.71%	4	1	5	1	4	5	26
4+ Axle Trucks	3.0	60.34%	15	4	19	5	15	20	105
Subtotal Trucks	--	--	21	6	27	7	21	28	146
Manufacturing	127.200	--							
Cars	--	--	37	11	48	20	46	66	393
Trucks	PCE Factor	--							
2-Axle Trucks	1.5	32.70%	12	3	15	3	7	10	53
3-Axle Trucks	2.0	17.90%	9	2	11	2	5	7	38
4+ Axle Trucks	3.0	49.40%	35	11	46	9	20	29	159
Subtotal Trucks	--	--	56	16	72	14	32	46	250
Subtotal Cars			51	15	66	25	61	86	622
Subtotal Trucks			77	22	99	21	53	74	396
TOTAL PCE TRIPS GENERATED			**128**	**37**	**165**	**46**	**114**	**160**	**1,018**

Notes: TSF = thousand square feet

[1] Truck by axle percentages obtained from City of Fontana, Tuck Trip Generation Study, August 2003.

[2] Passenger Car Equivalent (PCE) factors have been obtained from the County of San Bernardino Congestion Management Program. PCE factor of 1.0 is used for passenger cars (such as employee vehicles); light duty trucks use a PCE factor of 1.5; medium duty trucks with 3 axles use a PCE factor of 2.0; and heavy duty trucks with 4 or more axles use a PCE factor of 3.0.

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

As shown in Table 4.17-5, the Warehouse and Manufacturing Option is forecast to generate a total of approximately 788 daily vehicle trips, including 108 vehicles trips during the a.m. peak hour and 117 vehicle trips during the p.m. peak hour. As also shown in Table 4.17-5, the Warehouse and Manufacturing Option is forecast to generate a total of approximately 1,018 daily PCE trips, including 165 PCE trips during the a.m. peak hour and 160 PCE trips during the p.m. peak hour.

Table 4.17-6
Project Trip Generation (Warehouse Only Option)

Land Use/Vehicle Type	Source	Trip Generation Rates per TSF						
		AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Warehouse	ITE 150	77%	23%	0.17	27%	73%	0.19	1.74
Percent Cars	[a]	--	--	62.86%	--	--	64.38%	79.57%
Percent Trucks	[a]	--	--	37.14%	--	--	35.62%	20.43%
Car Trips per TSF		0.082	0.025	0.107	0.033	0.089	0.122	1.385
Truck Trips per TSF		0.049	0.015	0.064	0.018	0.049	0.067	0.355

Vehicle Trips Generated

Land Use/Vehicle Type	Quantity (TSF)	Land Use in Buildings	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Warehouse	292.400	1, 2 & 3							
Cars			24	7	31	10	26	36	405
Trucks			14	5	19	5	15	20	104
TOTAL VEHICLE TRIPS GENERATED			**38**	**12**	**50**	**15**	**41**	**56**	**509**

Passenger Car Equivalents (PCE) Trips Generated

Land Use/Vehicle Type	Quantity (TSF)	Truck Percent[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Warehouse	292.400	--							
Cars	--	--	24	7	31	10	26	36	405
Trucks	PCE Factor[2]	--							
2-Axle Trucks	1.5	16.95%	4	1	5	1	4	5	27
3-Axle Trucks	2.0	22.71%	7	1	8	2	7	9	48
4+ Axle Trucks	3.0	60.34%	26	8	34	10	25	35	189
Subtotal Trucks	--	--	37	10	47	13	36	49	264
Subtotal Cars			24	7	31	10	26	36	405
Subtotal Trucks			37	10	47	13	36	49	264
TOTAL PCE TRIPS GENERATED			**61**	**17**	**78**	**23**	**62**	**85**	**669**

Notes: TSF = thousand square feet

1 Truck by axle percentages obtained from City of Fontana, Truck Trip Generation Study, August 2003.

2 Passenger Car Equivalent (PCE) factors have been obtained from the County of San Bernardino Congestion Management Program. PCE factor of 1.0 is used for passenger cars (such as employee vehicles); light duty trucks use a PCE factor of 1.5; medium duty trucks with 3 axles use a PCE factor of 2.0; and heavy duty trucks with 4 or more axles use a PCE factor of 3.0.

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

As shown in Table 4.17-6, the Warehouse Only Option is forecast to generate approximately 509 daily vehicle trips, including 50 vehicles trips during the a.m. peak hour and 56 vehicle trips during the p.m. peak hour. As also shown in Table 4.17-6, the Warehouse Only Option is forecast to generate approximately 669 daily PCE trips, including 78 PCE trips during the a.m. peak hour and 85 PCE trips during the p.m. peak hour.

Project Trip Distribution

Trip distribution represents the directional orientation of trips to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the location of residential, retail, employment, and recreational opportunities, and the proximity to the regional freeway system. The directional orientation of project-generated trips was determined by evaluating existing and proposed land uses and highways within the community.

Forecast trip distribution for the proposed project has been developed as part of the Traffic Impact Analysis. Traffic Impact Analysis Figure 13, *Project Trip Distribution (Cars)*, and Figure 14, *Project Trip Distribution (Trucks)*, show the forecast trip distribution for passenger vehicles and truck trips.

Existing Plus Project Conditions

Table 4.17-7, *Existing Plus Project Significant Impact Evaluation*, evaluates the project impact at the study intersections for existing plus project conditions. As shown in Table 4.17-7, the study intersections are forecast to operate at an acceptable LOS (LOS D or better) during a.m. and p.m. peak hours, and based on established performance standards for LOS, the project would not conflict with an adopted policy since it would not result in a significant traffic impact at the study intersections under existing plus project conditions.

Table 4.17-7
Existing Plus Project Significant Impact Evaluation

	Study Intersection	Traffic Control	Existing				Existing Plus Project				AM Peak Hour		PM Peak Hour	
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Project Change	Significant Impact?	Project Change	Significant Impact?
			V/C or [Delay][1]	LOS	V/C or [Delay]	LOS	V/C or [Delay]	LOS	V/C or [Delay]	LOS				
1	Wilmington Avenue at I-405 NB Ramps	TS	0.639	B	0.714	C	0.642	B	0.715	C	+0.001	NO	+0.001	NO
2	Wilmington Avenue at I-405 SB Ramps	TS	0.870	D	0.761	C	0.888	D	0.768	C	+0.007	NO	+0.007	NO
3	Wilmington Avenue at 223rd Street	TS	0.710	C	0.722	C	0.710	C	0.726	C	+0.004	NO	+0.004	NO
4	Alameda Street at I-405 NB Ramps	TS	0.568	A	0.829	D	0.587	A	0.838	D	+0.009	NO	+0.009	NO
5	223rd Street I-405 SB Ramps	TS	0.547	A	0.558	A	0.550	A	0.566	A	+0.008	NO	+0.008	NO
6	Alameda Street (Connector) at 223rd Street	TS	0.565	A	0.840	D	0.569	A	0.853	D	+0.013	NO	+0.013	NO
7	East Driveway at 223rd Street	CSS[2]	--	--	--	--	[13.9]	B	[20.6]	C	--	NO	--	NO
8	Center Driveway at 223rd Street	CSS	--	--	--	--	[14.9]	B	[23.7]	C	--	NO	--	NO
9	West Driveway at 223rd Street	CSS	--	--	--	--	[15.1]	C	[24.3]	C	--	NO	--	NO

Notes: TS = traffic signal; CSS = cross-street stop; V/C = Volume/Capacity; LOS = level of service

[1] Delay is shown in [seconds/vehicle]. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).

[2] As specified in the Highway Capacity Manual, Level of Service at one- or two-way stop controlled intersections is based on the highest average approach delay (as opposed to the worst individual movement delay).

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

Future Traffic Conditions

To assess future conditions, existing roadway volumes are combined with project trips, ambient growth, and other (cumulative) development trips. The project completion year for analysis purposes in the Traffic Impact Analysis is 2021.

To account for ambient growth on roadways, existing traffic volumes were increased by 0.5 percent per year over a one year period. The ambient growth factor utilized in the Traffic Impact Analysis was derived from the modeled traffic growth factors contained in the *Los Angeles County 2010 Congestion Management Program* for the Regional Statistical Area (RSA) for the City. This is a conservative assumption since the ambient growth was applied to all movements at the study intersections.

Other pending or approved developments within a 1.5-mile radius were identified and included in the trip generation summary shown in Traffic Impact Analysis Table 5, *Other Development Trip Generation*. The regional ambient growth is assumed to account for any additional trips generated by other developments outside the 1.5-mile radius not specifically identified in Traffic Impact Analysis Table 5. Traffic Impact Analysis Figure 18, *Other Development Location Map*, depicts the locations of cumulative development. Other developments average daily traffic volumes are shown on Traffic Impact Analysis Figure 19, *Other Development Average Daily Traffic Volumes*, Figure 20, *Other Development AM Peak Hour Intersection Turning Movement Volumes*, and Figure 21, *Other Development PM Peak Hour Intersection Turning Movement Volumes*, show the forecast a.m. peak hour and p.m. peak hour intersection turning movement volumes for trips generated by other developments.

Opening Year (2021) Without Project Conditions

Opening year (2021) without project conditions traffic volumes consist of existing traffic volumes, a 0.5 percent annual growth rate, and traffic generated by cumulative projects; this scenario does not include project-generated traffic.

Table 4.17-8, *Opening Year (2021) Significant Impact Evaluation*, summarizes the results of the LOS analysis for the study intersections during opening year (2021) without project conditions. As shown, all study intersections are forecast to operate at an acceptable LOS (LOS D or better) during the peak hours under without project conditions.

Opening Year (2021) With Project Conditions

Opening year (2021) with project conditions traffic volumes consist of existing traffic volumes, a 0.5 percent annual growth rate, traffic generated by cumulative projects, and project-generated traffic.

Table 4.17-8 summarizes the results of the LOS analysis for the study intersections under opening year (2021) with project conditions. As shown, all study intersections are forecast to operate at an acceptable LOS (LOS D or better) during the peak hours under with project conditions. As such, the project would be consistent with the City's adopted LOS policy for opening year (2021).

Table 4.17-8
Opening Year (2021) Significant Impact Evaluation

	Study Intersection	Traffic Control	Existing				Existing Plus Project				AM Peak Hour		PM Peak Hour	
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Project Change	Significant Impact?	Project Change	Significant Impact?
			V/C or [Delay][1]	LOS	V/C or [Delay]	LOS	V/C or [Delay]	LOS	V/C or [Delay]	LOS				
1	Wilmington Avenue at I-405 NB Ramps	TS	0.645	B	0.728	C	0.648	B	0.729	C	+0.003	NO	+0.001	NO
2	Wilmington Avenue at I-405 SB Ramps	TS	0.886	D	0.778	C	0.893	D	0.777	C	+0.007	NO	+0.000	NO
3	Wilmington Avenue at 223rd Street	TS	0.718	C	0.734	C	0.719	C	0.738	C	+0.001	NO	+0.004	NO
4	Alameda Street at I-405 NB Ramps	TS	0.592	A	0.849	D	0.612	B	0.859	D	+0.020	NO	+0.010	NO
5	223rd Street I-405 SB Ramps	TS	0.560	A	0.571	A	0.563	A	0.580	A	+0.003	NO	+0.009	NO
6	Alameda Street (Connector) at 223rd Street	TS	0.577	A	0.858	D	0.581	A	0.871	D	+0.004	NO	+0.013	NO
7	East Driveway at 223rd Street	CSS[2]	--	--	--	--	[14.2]	B	[21.1]	C	--	NO	--	NO
8	Center Driveway at 223rd Street	CSS	--	--	--	--	[15.3]	C	[24.5]	C	--	NO	--	NO
9	West Driveway at 223rd Street	CSS	--	--	--	--	[15.5]	C	[25.1]	D	--	NO	--	NO

Notes: TS = traffic signal; CSS = cross-street stop; V/C = Volume/Capacity; LOS = level of service

[1] Delay is shown in [seconds/vehicle]. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).

[2] As specified in the Highway Capacity Manual, Level of Service at one- or two-way stop controlled intersections is based on the highest average approach delay (as opposed to the worst individual movement delay).

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

CMP Consistency

The *2010 Congestion Management Program* (CMP), prepared by the Los Angeles County Metropolitan Transportation Authority, is intended to reduce traffic congestion and provide a mechanism for coordinating land use and development decisions throughout Los Angeles County.[2] The CMP states that if a project generates 50 or more trips during either the a.m. or p.m. weekday peak hours for CMP arterial monitoring intersections, or more than 150 trips on the freeway in either direction during either the a.m. or p.m. weekday peak hours for mainline freeway monitoring locations, a CMP traffic analysis is required. As concluded in the Traffic Impact Analysis, the project is not forecasted to generate 50 or more trips during weekday peak hours at any CMP-monitored study intersection or 150 or more trips during weekday peak hours at any mainline freeway location. As such, a CMP traffic analysis is not required for the proposed project.

In addition, the CMP requires documentation of existing transit services in the project vicinity and estimation of the number of trips assigned to transit. As concluded in the Traffic Impact Analysis, there are no fixed route transit services within a one-quarter mile radius of the project site or Express bus routes and rail service within a two-mile radius of the project site. The nearest fixed route service is Metro Bus Line 202 along Alameda Street approximately 0.3-mile east of the project site. The nearest express bus route is Metro Line 456 Express Route providing service between Downtown Long Beach and Downtown Los Angeles with a stop at the Wardlow Station approximately 2.25 miles east of the project site. According to the Traffic Impact Analysis, the proposed project is forecast to generate approximately 30 daily transit trips, including 3 transit trips during the a.m. peak hour and 4 transit trips during the p.m. peak hour. Based on the relatively low project-generated transit trip estimate, the proposed project is expected to have a marginal impact on transit service capacity. As such, the project would be consistent with the CMP.

Caltrans Roadway Regulations

Intersection Delay Methodology

As previously noted, the technique used to assess the performance of intersections within Caltrans jurisdiction is known as the intersection delay methodology based on procedures contained in the Highway Capacity Manual (Transportation Research Board, 6th Edition). Refer to the earlier section for further explanation.

Intersection Levels of Service

Table 4.17-9, *State Highway Intersection Levels of Service*, shows the intersection Levels of Service at the State highway study intersections using the delay methodology. As shown in Table 4.17-9, the State highway study intersections are forecast to operate at LOS C or better during the peak hour conditions. Detailed intersection delay/Level of Service calculation worksheets for the State highway study intersections are provided in Appendix F of the Traffic Impact Analysis.

[2] Los Angeles County Metropolitan Transportation Authority, *2010 Congestion Management Program*, 2010.

Table 4.17-9
State Highway Intersection Level of Service

	Study Intersection	Existing				Existing Plus Project				Opening Year (2021) Without Project				Opening Year (2021 With Project)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay[1]	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay		LOS		Delay		LOS	
1	Wilmington Avenue at I-405 NB Ramps	22.1	C	21.3	C	22.0	C	21.3	C	22.2	C	21.2	C	22.1	C	21.2	C
2	Wilmington Avenue at I-405 SB Ramps	20.8	C	14.5	B	22.8	C	14.6	B	21.5	C	14.8	B	23.9	C	15.0	B
4	Alameda Street at I-405 NB Ramps	17.8	B	21.7	C	18.8	B	21.9	C	18.8	B	22.4	C	20.0	B	22.7	C
5	223rd Street I-405 SB Ramps	24.8	C	21.5	C	24.8	C	21.5	C	25.1	C	21.6	C	25.1	C	21.6	C

Notes: LOS = level of service

[1] Delay is shown in [seconds/vehicle].

Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

Freeway Mainline and Off-Ramp Screening Criteria

Caltrans District 7 generally requires freeway mainline and/or off-ramp queueing analysis if a project meets any of the following screening criteria:

- The project's peak hour trips would result in a one percent (1%) or more increase to the freeway mainline capacity of a freeway segment operating at Level of Service E or F (based on an assumed capacity of 2,000 vehicles per hour per lane).
- The project's peak hour trips would result in a two percent (2%) or more increase to the freeway mainline capacity of a freeway segment operating at Level of Service D (based on an assumed capacity of 2,000 vehicles per hour per lane).
- The project's peak hour trips would result in a one percent (1%) or more increase to the capacity of a freeway off-ramp operating at Level of Service E or F (based on an assumed ramp capacity of 850 vehicles per hour per lane).
- The project's peak hour trips would result in a two percent (2%) or more increase to the capacity of a freeway off-ramp operating at Level of Service D (based on an assumed ramp capacity of 850 vehicles per hour per lane).

Project Trip Contribution

According to the Traffic Impact Analysis, the project is forecast to contribute no more than 37 two-way peak hour trips to the I-405 freeway mainline and no more than 10 peak hour trips to I-405 southbound off-ramps at Wilmington Avenue and northbound off-ramps at Alameda Street.

Assuming the I-405 freeway mainline is operating at LOS E or worse, one percent of hourly capacity is equal to 100 trips for a five-lane segment (i.e., one-way and excluding high-occupancy vehicle [HOV] lanes). The proposed project is forecast to contribute fewer than 100 trips to I-405 in any direction; therefore, the project impact at freeway mainline facilities is considered less than significant.

Based on the State highway study intersection analysis, the freeway ramp terminus intersections are operating at Level of Service C or better. Therefore, the project would typically not be required to perform off-ramp queueing analysis, however, off-ramp queueing analysis has been performed for the two off-ramps expected to be most utilized by the project.

Off-Ramp Queueing Analysis

Table 4.17-10, *Freeway Off-Ramp Queuing Analysis*, summarizes the results of a queueing analysis for the I-405 freeway off-ramps at Wilmington Avenue and Alameda. As shown in Table 4.17-10, adequate off-ramp storage capacity is forecast to be provided at the study off-ramps with the addition of project-generated trips; therefore, the project impact is considered less than significant.

Table 4.17-10
Freeway Off-Ramp Queuing Analysis

	Study Intersection	Approach	Lane(s)	Designated Turning Lane Storage Length (Feet)[1]	Queue Length / Distance (Feet)										
					Peak Hour 95th-Percentile Queue Length[2]		Queue Length Exceeding Turning Lane Storage		Sum of Queue Lengths Exceeding Turning Lane Storage		85% Off-Ramp Length (Feet)	Off-Ramp Length		Adequate Storage Provided?	
					AM	PM	AM	PM	AM	PM		AM	PM	AM	PM
1	Wilmington Avenue at I-405 NB Ramps	Westbound	Left	400	460	485	60	85	150	170	820	670	650	Yes	Yes
			Left	400	460	485	60	85							
			Right	400	430	320	30	0							
2	Wilmington Avenue at I-405 SB Ramps	Eastbound	Left-Thru	75	105	35	30	0	230	0	720	490	720	Yes	Yes
			Right	75	275	65	200	0							
4	Alameda Street at I-405 NB Ramps	Eastbound	Left	730	520	545	0	0	0	0	750	750	750	Yes	Yes
			Right	730	205	235	0	0							
5	223rd Street I-405 SB Ramps	Southbound	Left	260	105	105	0	0	0	0	600	600	600	Yes	Yes
			Right-Thru	260	185	185	0	0							

Notes: LOS = level of service
1 Length shown in feet per lane.
2 Queue length shown per lane for Opening Year (2021) With Project Conditions.
Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

City of Carson Transit, Bicycle, and Pedestrian Facilities

There are no fixed route transit services within a one-quarter mile radius of the project site or express bus routes and rail service within a two-mile radius of the project site. The nearest fixed route service is Metro Bus Line 202 along Alameda Street approximately 0.3-mile east of the project site. The nearest express bus route is Metro Line 456 Express Route providing service between Downtown Long Beach and Downtown Los Angeles with a stop at the Wardlow Station approximately 2.25 miles east of the project site. According to the Traffic Impact Analysis, the proposed project is forecast to generate approximately 30 daily transit trips, including 3 transit trips during the a.m. peak hour and 4 transit trips during the p.m. peak hour. Based on the relatively low project-generated transit trip estimate, the proposed project is not expected to involve significant impacts to transit service capacity.

There are no dedicated bicycle routes planned for the study area roadways; refer to Traffic Impact Analysis Figure 9, *City of Carson General Plan Bike Routes*. Thus, implementation of the proposed project would not impair existing pedestrian sidewalks or bicycle facilities along East 223rd Street. As shown on Traffic Impact Analysis Figure 5, *Existing Pedestrian Facilities*, a pedestrian sidewalk is currently provided along to the east and west of the project's frontage along East 223rd Street. As noted in Section 3.0, *Project Description*, the City has approved a Capital Improvement Project to replace the existing sidewalk, curb, and gutter along the project's frontage at East 223rd Street to connect to existing pedestrian facilities to the east and west of the project site. Therefore, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact With Mitigation Incorporated. As discussed, SB 743 eliminates LOS as a basis for determining significant transportation impacts under CEQA and provides a new performance metric, VMT. As a result, the State is shifting from measuring a project's impact to drivers (LOS) to measuring the impact of driving (VMT) as it relates to achieving State goals of reducing greenhouse gas (GHG) emissions, encouraging infill development, and improving public health through active transportation.

The VMT Analysis follows the CEQA guidance for determining transportation impacts in accordance with SB 743. The City has not yet established VMT analysis procedures at this time; therefore, in lieu of the City adopting and setting its own VMT metric and thresholds, this analysis is consistent with the approach provided in the Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory), dated December 2018. This analysis uses the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) trip-based model to estimate the baseline VMT for the City of Carson. The current SCAG model has a 2012 base year, a 2016 scenario, and 2040 as the forecast year. The VMT Analysis is based on year 2016 results. This baseline VMT methodology includes vehicle trips within the SCAG model to generate the following metric:

- Home-Based Work VMT per Employee: Vehicle trips between home and work are counted and then divided by the number of employees within the geographic area. This metric is used to estimate VMT for the manufacturing, warehousing, and areas associated with offices or administrative functions.

According to the VMT Analysis, the City's home-based work VMT per Employee (i.e., baseline VMT) is 19.6; refer to Table 4.17-11, *City of Carson Baseline VMT and VMT Impact Thresholds for Home-Based Work VMT*. Following guidance from OPR, the identified threshold of 15 percent reduction from baseline VMT is used to apply to the project. If the project would generate VMT higher than the threshold, then the project would be expected to have a VMT impact, and if the project would generate VMT lower than the threshold, then it would not be expected to have a VMT impact. The City's baseline VMT and VMT impact threshold are summarized in Table 4.17-11.

Table 4.17-11
City of Carson Baseline VMT and VMT Impact Thresholds for Home-Based Work VMT

VMT Metric	Baseline VMT	VMT Impact Threshold[1]
Home-Based Work VMT per Employee	19.6	16.7

Notes:
1. The VMT Impact Threshold for each VMT metric is 15 percent below the respective Baseline VMT.
Source: Fehr and Peers, *Panattoni Warehouse Project: Vehicle Miles Traveled Analysis*, May 19, 2020; refer to Appendix F.

VMT Methodology

Step 1 – Determine Average Person Trip Rates from the SCAG Model

As noted, the SCAG 2016 RTP/SCS model was used as the basis to estimate the project's VMT impacts. Analysis was performed using the SCAG travel model to estimate an average trip rate for both warehouse and manufacturing uses. The trip generation rates at each transportation analysis zone (TAZ) were averaged to obtain a home-based work attraction trip per employee (i.e., employee commute trips between their home and their workplace). Table 4.17-12, *Person Trip Rates for the City of Carson*, presents these results.

Table 4.17-12
Person Trip Rates for City of Carson

Metrics	Trip Rate
Home-Based Work VMT per Employee for Warehouse Use[1]	1.63
Home-Based Work VMT per Employee for Manufacturing Use[1]	1.67

Notes:
1. Includes employee commute trips between home and their workplace.
Source: Fehr and Peers, *Panattoni Warehouse Project: Vehicle Miles Traveled Analysis*, May 19, 2020; refer to Appendix F.

Step 2 – Average Person Trip Rate to Vehicle Trips Conversion

Before conducting the VMT calculations, person trips need to be converted to vehicle trips. Average mode splits or the City of Carson were obtained from the SCAG model and used to obtain the vehicle trips for the project.

For warehouse and manufacturing employees, the VMT Analysis assumed that 86 percent of total trips would occur in vehicles occupied by one person and 11 percent of total trips would occur in vehicles occupied by an average of 2.3 people. The remaining 3 percent of trips would take place using alternative modes such as walking, biking, or transit, and are not included in the VMT calculation.

For the Warehousing and Manufacturing Option, the VMT Analysis assumes 70 employees would work at the warehouse uses and 54 employees would work at manufacturing uses. Based on the above trip rates and mode split information the project is estimated to generate 185 daily vehicle trips for employees' commute trips. For the Warehouse Only Option, the VMT Analysis assumes that all 124 employees would work at the warehouse. Based on the above trip rates and mode split information, the project is estimated to generate 183 daily vehicle trips for employee commute trips.

Step 3 – Estimate Trip Length

The VMT Analysis estimated the project's trip lengths using data from the 2016 SCAG model. The travel model has the ability to produce average trip lengths for each TAZ in the City of Carson. For the specific TAZ where the project is located, the average trip length for home-based work attractions is 16.3 miles.

Step 4 – VMT Calculation

The final step to calculate VMT is to multiply the number of vehicle trips by the average trip length of those trips. For the Warehouse and Manufacturing Option, total commute VMT of the manufacturing and warehouse employees at the project is estimated to be 3,016. The weighted average of VMT per employee for the Warehouse and Manufacturing Option is 24.3. For the Warehouse Only Option, total commute VMT of the warehouse employees at the project is projected to be 2,983. The Warehouse Only Option VMT was divided by the 124 employees to obtain a work VMT per employee of 24.1. These results are presented in Table 4.17-13, *VMT per Employee Calculation*, and are compared against the citywide VMT threshold.

Table 4.17-13
VMT per Employee Calculation

Land Use	Mode Split (SOV)	Mode Split (HOV)	Average Vehicle Occupancy	Trip Length (mi)	Person Trip Rate	VMT per Employee	VMT Impact Threshold	VMT Impact?
Warehouse	86%	11%	2.3	16.3	1.63	24.1	16.7	**Yes**
Manufacturing					1.67	24.7		**Yes**

Notes:
SOV = Single-Occupancy Vehicle; HOV = High-Occupancy Vehicle; mi = miles
Source: Fehr and Peers, *Panattoni Warehouse Project: Vehicle Miles Traveled Analysis*, May 19, 2020; refer to Appendix F.

Step 5 – Truck VMT Calculation

Truck trip length for light, medium, and heavy-duty trucks are for the specific TAZ related to the Project from the SCAG model. According to the VMT Analysis, the Warehouse and Manufacturing Option would result in a 2,322 VMT and the Warehouse Only Option would result in 1,546 VMT. The project's truck VMT are provided for GHG and air quality considerations only as there are no adopted VMT thresholds available for trucks; refer to Section 4.3, *Air Quality*, and Section 4.8, *Greenhouse Gas Emissions*. Thus, the project's truck VMT would not conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) in this regard.

VMT Impacts

As discussed, both development options would exceed the City's threshold of 16.7 VMT per employee for the home-based work VMT. In order to mitigate the VMT per employee impacts of the Warehouse and Manufacturing Option, the project's employee VMT would need to be reduced by approximately 36 percent. In order to mitigate the VMT per employee impacts of the Warehouse Only Option, the project's employee VMT would need to be reduced by approximately 31 percent.

In order to achieve this reduction, Mitigation Measure TRA-1 would require the implementation, monitoring, and enforcement of a local hiring program to ensure reasonable efforts have been made to recruit future employees that live within a specified distance of the project site (i.e., local job fairs) and thus reduce average employee commutes. By monitoring the residential location of project employees to understand the length of employee commutes and the proportion of employees residing within certain distances from the project, it is possible to calculate the average employee commute trip length and determine whether it is within the identified employee VMT trip threshold of 16.7 VMT per employee trip. A sample tool has been developed by Fehr and Peers and is included as Attachment B of the VMT Analysis. With implementation of Mitigation Measure TRA-1, impacts would be reduced to less than significant.

Mitigation Measures:

TRA-1 Prior to the project operations, the project Applicant shall enter into an Operational Labor Agreement with the City of Carson to implement a local hiring program consisting of reasonable efforts such as local job

fairs to reduce employee vehicle miles travelled (VMT) to the City's threshold of 16.7 VMT per Employee or less. The Operational Labor Agreement shall specify that the Property Owner, or designee, provides to the City Traffic Engineer on an annual basis an Employee VMT Monitoring Table, or other VMT monitoring system, as approved by the City Traffic Engineer, that identifies commute distance bins and the proportion of employees within each bin to determine the project's average home-based work VMT per employee. A sample Employee VMT Monitoring Table is included as Attachment B of the *Panattoni Warehouse Project: Vehicle Miles Traveled Analysis*, prepared by Fehr and Peers, dated May 19, 2020. The Employee VMT Monitoring Table, or other approved VMT monitoring system, shall be approved by the City of Carson Traffic Engineer prior to project operations.

If, through preparation of the Employee Monitoring Table, or other approved VMT monitoring system, it is determined that the project would still exceed the City's threshold of 16.7 VMT per Employee, the project Applicant shall be responsible for identifying and implementing travel demand measures to demonstrate the project's VMT per employee are reduced to less than significant levels. These measures may include, but are not limited to, identifying and paying for off-street parking, providing transit passes to employees, providing commuter incentives, providing transit subsidies, providing parking cash-outs, commute marketing program, or implementing carpool/vanpool incentives. The project Applicant shall be responsible for demonstrating the effectiveness of these measures through the VMT monitoring system to reduce the project's VMT per employee to the City's threshold of 16.7, as verified by the City Traffic Engineer.

Should the City of Carson adopt a VMT threshold, the project Applicant or future Property Owner has the option to submit an updated VMT analysis to the City Engineer for review and approval. Should the VMT analysis show that the project is less than significant per the City's adopted VMT threshold, this mitigation measure shall no longer apply.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The project does not propose changes to the City's circulation system, such as sharp curves or dangerous intersections, and would not introduce incompatible uses to area roadways (e.g., farm equipment). The project proposes driveway improvements to provide site access and circulation. Site access would be provided via three full access driveways along East 233rd Street. As such, a driveway analysis was conducted to evaluate traffic operations at the project driveways under all scenarios. As detailed in Table 4.17-12, *Project Driveway Queuing Analysis*, all study intersections with a driveway (Study Intersections Nos. 7, 8, and 9) would not result in a significant impact under any scenario with regard to driveway queuing.

Table 4.17-14
Project Driveway Queueing Analysis

Intersection		Approach	Lane	Storage Length (Feet)[1]	95th-Percentile Queue Length (Feet)[2]		Adequate Storage Provided ?
					AM Peak Hour	PM Peak Hour	
7	East Driveway at 223rd Street	Northbound	Left-Right	75	25	25	YES
		Eastbound	Thru-Right	300	25	25	YES
		Westbound	Left	30	25	25	YES
8	Center Driveway at 223rd Street	Northbound	Left	75	25	25	YES
		Eastbound	Thru-Right	325	25	25	YES
		Westbound	Left	60	25	25	YES
9	West Driveway at 223rd Street	Northbound	Left-Right	75	25	25	YES
		Eastbound	Thru-Right	140	25	25	YES
		Westbound	Left	215	25	25	YES

Notes:
[1] Distance to the adjacent driveway (existing or proposed future development).
[2] The forecast 95th-percentile lengths reported in the delay/Level of Service calculation worksheets have been rounded up to nearest 5-foot increment.
Source: Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis, City of Carson*, June 3, 2020; refer to Appendix F.

Internal vehicular circulation would be provided via the perimeter of Buildings A, B, and C, as depicted on Exhibit 2-3, *Conceptual Site Plan*. The proposed driveways and interior vehicular circulation are designed to meet the Fire Department turning radius requirements, as well as to accommodate truck traffic. It is noted that the City has approved a Capital Improvement Project to replace the existing sidewalk, curb, and gutter along the project's frontage at East 223rd Street beginning in September 2020. The project's final grading, landscaping, and street improvement plans would be required demonstrate that sight distance standards are met in accordance with applicable City of Carson/Caltrans sight distance standards**.** As such, the project would not increase hazards due to geometric design features or incompatible uses and impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

d) Result in inadequate emergency access?

Less Than Significant Impact. As detailed above in Response 4.17(c), the project would install three full access driveways along East 233rd Street at the project frontage and internal circulation drive aisles. The proposed access and circulation improvements would meet fire access and truck turning radii requirements and would not result in inadequate emergency access.

Construction of the project's utility connections within East 223rd Street would require temporary partial lane closures which have the potential to result in safety hazards during the short-term construction process. During periods when partial road closure is required, the Applicant would be required to implement a traffic management plan (TMP) to maintain emergency access during the construction process (Mitigation Measure TRA-2). The TMP would include potential measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flagperson to direct traffic during heavy equipment use, among others. The TMP would ensure emergency access is maintained during short-term construction activities. As a result, with implementation of Mitigation Measure TRA-2, impacts would be less than significant.

Mitigation Measures:

TRA-2 Prior to the initiation of construction, the project Applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Carson Traffic Engineer. The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flagperson to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for East 223rd Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.

This page intentionally left blank.

4.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				✓
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		✓		

As of July 1, 2015, California Assembly Bill 52 (AB 52) was effective and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources (CRHR) or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

On February 19, 2016, the California Natural Resources Agency proposed to adopt and amend regulations as part of AB 52 implementing Title 14, Division 6, Chapter 3 of the California Code of Regulations, CEQA Guidelines, to include consideration of impacts to tribal cultural resources pursuant to Government Code Section 11346.6. On September 27, 2016, the California Office of Administrative Law approved the amendments to Appendix G of the CEQA Guidelines, and these amendments are addressed within this Initial Study.

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No Impact. As detailed in Response 4.5(a), no historic resources listed or eligible for listing in a State or local register of historic resources are located on the project site. Therefore, no impacts related to historic tribal cultural resources defined in Public Resources Code Section 5020.1(k) would occur in this regard.

Mitigation Measures: No mitigation is required.

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact With Mitigation Incorporated. In compliance with AB 52, the City of Carson distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project. The letters were distributed by certified mail on January 30, 2020. The tribes had 30 days to respond to the City's request for consultation. The Gabrieleno Band of Mission Indians – Kizh Nation tribal representative replied within the 30 days requesting consultation and the City consulted with the tribe on March 12, 2020.

The Gabrieleno Band of Mission Indians – Kizh Nation indicated that the project site is located within the vicinity of known tribal cultural resources. However, no specific known tribal cultural resources were identified at the project site. As such, the project site is considered sensitive for unknown tribal cultural resources. To avoid impacting or destroying unknown tribal cultural resources that may be inadvertently unearthed during the project's ground disturbing activities, Mitigation Measure TCR-1 would ensure that a qualified archaeologist (Mitigation Measure CUL-1) and Tribal monitor/consultant who is both approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and is listed under the Native American Heritage Commission's (NAHC's) Tribal Contact list for the area of the project location are present during site disturbing activities. If evidence of potential subsurface tribal cultural materials are found during any phase of site disturbance/construction and the qualified archaeologist/Native American Monitor determines that the find is prehistoric or includes Native American materials, Mitigation Measure TCR-1 would ensure affiliated Native American groups are invited to contribute to the assessment and recovery of the found resource. With implementation of Mitigation Measure TCR-1, impacts would be reduced to less than significant levels.

Mitigation Measures:

TCR-1 Prior to issuance of any grading permits, the project Applicant shall be required to retain and compensate for the services of a Tribal monitor/consultant who is both approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and is listed under the Native American Heritage Commission's (NAHC's) Tribal Contact list for the area of the project location. This list is provided by the NAHC. The monitor/ consultant shall be present on-site during the construction phases that involves ground disturbing activities. Ground disturbing activities are defined by the Gabrieleño Band of Mission Indians-Kizh Nation as activities that may include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching within the project area. The Tribal Monitor/consultant shall complete daily monitoring logs that provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when the project site

grading and excavation activities are completed, or when the Tribal Representatives and monitor/consultant have indicated that the site has a low potential for impacting Tribal Cultural Resources.

Upon discovery of any tribal cultural or archaeological resources, all construction activities shall cease in the immediate vicinity of the find until the find can be assessed. All tribal cultural and archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist (Mitigation Measure CUL-1) and the tribal monitor/consultant. If the resources are Native American in origin, the Gabrieleño Band of Mission Indians-Kizh Nation shall coordinate with the landowner regarding treatment and curation of these resources. Typically, the Tribe requests preservation in place or recovery for educational purposes. Work may continue on other parts of the project while evaluation and, if necessary, additional protective mitigation takes place (CEQA Guidelines Section15064.5 [f]). If a resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource" (per Mitigation Measure CUL-1), time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be made available by the Applicant. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources.

Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. All Tribal Cultural Resources shall be returned to the Tribe. Any historic archaeological material that is not Native American in origin shall be curated at a public, nonprofit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to the Tribe or a local school or historical society in the area for educational purposes.

Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, or associated grave goods defined in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC) and PRC 5097.98 shall be followed.

Upon discovery of human remains, the tribal monitor/consultant and/or qualified archaeologist (Mitigation Measure CUL-1) shall immediately divert work at minimum of 150 feet and place an exclusion zone around the discovery location. The monitor/consultant(s) shall then notify the Tribe, the qualified lead archaeologist, and the construction manager who shall call the coroner. Work shall continue to be diverted while the coroner determines whether the remains are human and subsequently Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner shall notify the NAHC as mandated by state law who shall then appoint a Most Likely Descendent (MLD).

If the Gabrieleno Band of Mission Indians – Kizh Nation is designated MLD, the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later;

other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects.

Prior to the continuation of ground disturbing activities, the land owner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains shall be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard shall be posted outside of working hours. Every effort to diverting the project and keep the remains in situ and protected shall be made. However, if the project cannot be diverted, burials can then be removed, as approved by the Tribe. The Tribe shall work closely with the qualified archaeologist to ensure that the excavation is treated carefully, ethically, and respectfully. If data recovery is approved by the Tribe, documentation shall be taken which includes at a minimum detailed descriptive notes and sketches. Additional types of documentation shall be approved by the Tribe for data recovery purposes. Cremations shall either be removed in bulk or by means as necessary to ensure complete recovery of all material. If the discovery of human remains includes four or more burials, the location is considered a cemetery and a separate treatment plan shall be created. Once complete, a final report of all activities is to be submitted to the Tribe and the NAHC. The Tribe does not authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains, in accordance with existing laws and regulations.

Each occurrence of human remains and associated funerary objects shall be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony shall be removed to a secure container on site if possible. These items shall be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

Archaeological and Native American monitoring and excavation during construction shall be consistent with current professional standards. All feasible care to avoid any unnecessary disturbance, physical modification, or separation of human remains and associated funerary objects shall be taken. Principal personnel must meet the Secretary of Interior standards for archaeology and have a minimum of 10 years of experience as a principal investigator working with Native American archaeological sites in southern California. The qualified archaeologist (Mitigation Measure CUL-1) shall ensure that all other personnel are appropriately trained and qualified.

4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			✓	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			✓	
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e. Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?			✓	

a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact.

Water

The project site is served by California Water Service Company Rancho Dominguez district (Cal Water). The proposed project would construct a new private on-site water system providing domestic, irrigation, and fire services water needs; refer to Section 2.4, *Project Characteristics*. The new system would connect to the existing 12-inch public water main in East 223rd Street. Payment of standard water connection fees and ongoing user fees would ensure that sufficient water supplies are available. Additionally, Cal Water provided a "Will Serve" letter for use of this waterline by the proposed project; refer to Appendix G, *Utility Will Serve Letters*.[1] The proposed project is consistent with land uses in the area and would not result in substantial unplanned population growth. Thus, it is not anticipated that project implementation would require construction of new or expansion of existing water facilities. Less than significant impacts would occur in this regard.

[1] Written Correspondence: Daniel Armendariz, District Manager, California Water Service Company, September 24, 2019.

Wastewater

According to the Sanitation Districts of Los Angeles County (LACSD), demolition of the existing uses and construction of the proposed project is anticipated to generate approximately 7,310 net gallons of wastewater per day (gpd).[2] The project proposes to construct a new private on-site sewer system that flows north and connects with LACSD's existing 24-inch diameter Davidson City Trunk Sewer Sections 1, 2, and 3 located in East 223rd Street. Wastewater generated by the proposed project would be treated at the LACSD's Joint Water Pollution Control Plant (JWPCP) located in the City of Carson, which has a capacity of 400 million gallons per day (mgd) and currently processes an average flow of 261.1 mgd.

As the project is consistent with land uses in the area and would not result in substantial unplanned population growth, payment of standard sewer connection fees and ongoing user fees would ensure that sufficient capacity is available. Additionally, the LACSD provided a "Will Serve" letter for the proposed project; refer to Appendix G. Thus, it is not anticipated that project implementation would require construction of new or the expansion of existing wastewater facilities. Impacts would be less than significant in this regard.

Stormwater

The proposed project would construct a new network of storm drain lines on-site. A portion of runoff would be diverted to the street via a proposed sump pump, with the remaining volume temporarily stored on-site within a proposed underground detention system and on the surface of the truck yard. The proposed landscaped areas adjacent to East 223rd Street would sheet flow into the street; refer to Section 4.10, *Hydrology and Water Quality*.

The project's potential environmental effects for construction of the abovementioned storm drain improvements are analyzed in this Initial Study. Construction of the new storm drain improvements would be subject to compliance with all applicable local, State, and Federal laws, ordinances, and regulations, as well as the specific mitigation measures in this Initial Study. Compliance with the relevant laws, ordinances, and regulations, as well as the specified mitigation measures, would ensure the project's construction-related environmental impacts are less than significant.

Dry Utilities

The project would result in the construction of new private on-site dry utilities associated with electricity, natural gas, and telecommunication services. Electricity services for the proposed project would be provided by Southern California Edison. The project would continue to utilize the existing gas main located along East 223rd Street. No new natural gas line improvements are proposed. Telecommunication services for the proposed project would be provided by Charter Communications.

The project's potential environmental effects for construction of the abovementioned dry utility improvements are analyzed throughout this Initial Study. Construction of the project's dry utilities would be subject to compliance with all applicable local, State, and Federal laws, ordinances, and regulations, as well as the specific mitigation measures in this Initial Study. Compliance with the relevant laws, ordinances, and regulations, as well as the specified mitigation measures, would ensure the project's construction-related environmental impacts are less than significant.

Mitigation Measures: No mitigation is required.

[2] Written Correspondence: Adriana Raza, Customer Service Specialist, Sanitation Districts of Los Angeles County, October 15, 2019.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less Than Significant Impact. As stated in Response 4.19(a), the project site is served by Cal Water. According to Cal Water's *2015 Urban Water Management Plan – Dominguez District* (UMWP), the Dominguez District currently relies on approximately 26,886 acre feet per year (AFY) of purchased (imported) water, 4,405 AFY of groundwater, and 6,081 AFY of recycled water.[3] According to the UWMP, the Dominguez District would be capable of providing adequate water supply to its service area under a normal supply and demand scenario, single dry-year supply and demand scenario, and multiple dry-year supply and demand scenarios through 2040. The UWMP water supply predictions is based on existing General Plan designations and accounts for increased demand as growth within the City occurs. The project would require a General Plan Amendment to change the site's land use designation from Business Park (BP) to Light Industrial (LI). However, the project site was formerly developed with a heavy industrial polyvinyl chloride plant known as Stauffer Chemical Company. As the site was formerly developed with heavy industrial uses, the proposed light industrial uses would not induce substantial unplanned population growth beyond the site's former use. As a light industrial development, the proposed project would be consistent with land uses anticipated for the area; refer to Section 4.11, *Land Use and Planning*. As stated in Response 4.19(a),Cal Water provided a "Will Serve" for water use at the project site. Thus, Cal Water would ensure there to be sufficient water supply to serve the proposed project.

Mitigation Measures: No mitigation is required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. As stated in Response 4.19(a), the proposed project would result in the generation of additional wastewater above existing conditions. However, there is substantial capacity for wastewater treatment at the JWPCP in addition to existing commitments. The project's projected wastewater treatment demand (estimated at 7,310 gpd) would represent only 0.005 percent of JWPCP's remaining capacity (estimated at 138.9 mgd). [4]

Payment of standard sewer connection fees and ongoing user fees would ensure that sufficient capacity is available. Additionally, LACSD provided a "Will Serve" letter for the proposed project. As such, the project's potential impacts on wastewater treatment provider would be fully mitigated via payment of fees and LACSD's service commitment. Less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. Waste Resources provides commercial solid waste collection services for the City.[5] In 2018, a total of 206,759 tons of solid waste were disposed in the 19 permitted landfills serving the City.[6] Among the

[3] California Water Service, *2015 Urban Water Management Plan – Dominguez District*, June 2016.

[4] Written Correspondence: Adriana Raza, Customer Service Specialist, Sanitation Districts of Los Angeles County, October 15, 2019.

[5] City of Carson, *City Transition Letter,* https://ci.carson.ca.us/content/files/pdfs/publicworks/CityTranisitonLetter-WR-Signed.pdf, accessed February 3, 2020.

[6] CalRecycle, *Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility,* https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility, accessed February 3, 2020.

sites, El Sobrante Landfill, Holloway Landfill, and Chiquita Canyon Sanitary Landfill admitted the majority of the City's waste.[7]

Construction

All construction activities would be subject to conformance with relevant Federal, State, and local requirements related to solid waste disposal. Specifically, the project would be required to demonstrate compliance with the California Integrated Waste Management Act of 1989 (AB 939), which requires all California cities to "reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible." The California Integrated Waste Management Act of 1989 requires that at least 50 percent of waste produced is recycled, reduced, or composted. The project would also be required to demonstrate compliance with the Green Building Code, which includes design and construction measures that act to reduce construction-related waste though material conservation measures and other construction-related efficiency measures. Compliance with these programs would ensure the project's construction-related solid waste impacts are less than significant.

Operation

Based on the project's air quality and greenhouse gas modeling, project operations are expected to generate approximately 90.65 tons of waste per year, or approximately 0.25 tons per day (tpd); refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*. This represents less than one percent of the daily permitted throughput capacities identified in Table 4.19-1, *Landfills Serving the City*, below. As such, the project is not anticipated to generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant in this regard.

Table 4.19-1
Landfills Serving the City

Landfill/Location	Amount Disposed by City in 2018 (tons/day)	Maximum Daily Throughput (tons per day)	Remaining Capacity (cubic yards)	Anticipated Closure Date
El Sobrante Landfill 10910 Dawson Canyon Road Corona, CA 91719	89,673	16,054	143,977,170	01/01/2051
Holloway Landfill 14045 Holloway Road Lost Hills, CA 93249	60,390	2,000	7,522,934	12/01/2030
Chiquita Canyon Sanitary Landfill 29201 Henry Mayo Drive Castaic, CA 91384	33,307	12,000	60,408,000	04/01/2047
Frank R. Bowerman Sanitary Landfill 11002 Bee Canyon Access Road Irvine, CA 92618	7,420	11,500	205,000,000	12/31/2053
Sunshine Canyon City/County Landfill 14747 San Fernando Road, Sylmar, CA 91342	3,825	12,100	77,900,000	10/31/2037

Notes:
1. Antelope Valley Public Landfill, Azusa Land Reclamation Co. Landfill, Clean Harbors Buttonwillow LLC, Commerce Refuse-To-Energy Facility, Kettleman Hills - B18 Nonhaz Codisposal, Lancaster Landfill and Recycling Center, McKittrick Waste Treatment Site, Mid-Valley Sanitary Landfill, Olinda Alpha Landfill, Prima Deshecha Landfill, San Timoteo Sanitary Landfill, Scholl Canyon Landfill, Simi Valley Landfill & Recycling Center, and Southeast Resource Recovery Facility are excluded from Table 4.19-1 as these facilities accepted less than one percent of the City's solid waste in 2018 (the last available reporting year).

Sources:
1. CalRecycle, *SWIS Facility/Site Search*, https://www2.calrecycle.ca.gov/SWFacilities/Directory/, accessed February 3, 2020.

[7] CalRecycle, *Transported Solid Waste*, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Statewide/TransportedSolidWaste, accessed February 3,2020.

2. CalRecycle, *Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility,* https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility, accessed February 3, 2020.
3. CalRecycle, *Transported Solid Waste*, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Statewide/TransportedSolidWaste, accessed February 3, 2020.

Mitigation Measures: No mitigation is required.

e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Refer to Response 4.19(d) above. The proposed project would comply with all Federal, State, and local statutes and regulations related to solid waste, including the California Integrated Waste Management Act and City requirements for solid waste generated during the construction process. Less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

This page intentionally left blank.

4.20 WILDFIRE

If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				✓
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				✓
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				✓

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the California Department of Forestry and Fire Protection's *Los Angeles County Fire Hazard Severity Zones in SRA Map*, the City of Carson is not located in or near a State responsibility area nor is the City designated as a very high fire hazard severity zone.[1] No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation is required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation is required.

[1] California Department of Forestry and Fire Protection, *Los Angeles County Fire Hazard Severity Zones in SRA Map*, updated November 7, 2007.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation is required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
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)?		✓		
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. As concluded in Section 4.4, *Biological Resources*, the project site is heavily disturbed and is located within an urbanized area of the City. Based on the site's condition, no sensitive plant or animal species would be present. Thus, the project would have no impacts on sensitive plant or animal species. As indicated in Section 4.5, *Cultural Resources*, and Section 4.18, *Tribal Cultural Resources*, project implementation is not anticipated to result in impacts to cultural or tribal cultural resources based on the site's disturbed condition and past use as a polyvinyl chloride plant. However, in the unlikely event that buried archaeological resources are encountered during ground disturbance activities, Mitigation Measure CUL-1 would require all project construction efforts to halt until an archaeologist examines the site, identifies the archaeological significance of the find, and recommends a course of action. To avoid impacting or destroying tribal cultural resources that may be inadvertently unearthed during the project's ground disturbing activities, Mitigation Measure TCR-1 would ensure a qualified Native American Monitor is present during site disturbing activities. If evidence of potential subsurface tribal cultural materials is found during site disturbance/excavation activities and the qualified archaeologist (Mitigation Measure CUL-1) and Tribal monitor/consultant determine that the find is prehistoric or includes Native American materials, Mitigation Measure TCR-1 would ensure affiliated Native American groups are invited to contribute to the assessment and recovery of the found resource. In the unlikely event that paleontological resources are encountered during project construction, Mitigation Measure GEO-1 would require all project construction activities to halt until a paleontologist identifies the paleontological significance of the find and recommends a course of action. Therefore, the proposed

project would not potentially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Impacts would be less than significant with mitigation incorporated in this regard.

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 With Mitigation Incorporated. A significant impact may occur if a proposed project, in conjunction with related projects, would result in impacts that are less than significant when viewed separately, but would be significant when viewed together. As concluded in Sections 4.1 through 4.20, the proposed project would not result in any significant impacts in any environmental categories with implementation of project mitigation measures. Implementation of mitigation measures at the project-level would reduce the potential for the incremental effects of the proposed project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects. Impacts would be less than significant with mitigation incorporated in this regard.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air quality, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed project would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly, following conformance with the existing regulatory framework and implementation of project mitigation measures. Impacts would be less than significant with mitigation incorporated in this regard.

4.22 REFERENCES

The following references were utilized during preparation of this Initial Study/Mitigated Negative Declaration. These documents are available for review upon request by contacting Max Castillo, Assistant Planner, at (310) 952-1700 ext. 1317.

Avocet Environmental, Inc., *Phase I Environmental Site Assessment, Former Stauffer Chemical Company Facility, 2112 East 223rd Street, Carson, California 90745,* dated November 22, 2019.

California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2017*, https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf, accessed April 10, 2020.

California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017.

California Air Resources Board, *EMFAC 2017 Web Database*, https://www.arb.ca.gov/emfac/2017/, accessed April 10, 2020.

California Code of Regulations, *2016 California Fire Code*, dated July 2016.

California Code of Regulations, *2019 California Building Code*, dated July 2019.

California Department of Conservation, *California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed January 31, 2020.

California Department of Conservation, *Los Angeles County Williamson Act FY 2015/2016 Map*, updated 2016.

California Department of Conservation, *Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the San Gabriel Valley Production-Consumption Region, Los Angeles County, California*, dated 2010.

California Department of Finance Demographic Research Unit, *Report E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2019, with 2010 Benchmark, Sacramento, California*, May 1, 2019.

California Department of Forestry and Fire Protection, *Los Angeles County Fire Hazard Severity Zones in SRA*, updated November 7, 2007.

California Department of Resources Recycling and Recovery, *Green Building Materials*, https://www.calrecycle.ca.gov/greenbuilding/materials#Material, accessed April 15, 2020.

California Department of Transportation, *List of Eligible and Officially Designated State Scenic Highways*, updated July 2019.

California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, https://gis.water.ca.gov/app/bp-dashboard/final/, accessed February 3, 2020.

California Energy Commission, *2013 California Energy Efficiency Potential and Goals Study*, Appendix Volume I, August 15, 2013.

California Energy Commission, *2017 Power Content Label Southern California Edison*, https://www.sce.com/sites/default/files/inline-files/2017PCL_0.pdf, accessed April 9, 2020.

California Energy Commission, *2019 Building Energy Efficiency Standards*, https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf, accessed April 10, 2020.

California Energy Commission, *Electricity Consumption by County*, http://www.ecdms. energy.ca.gov/elecbycounty.aspx, accessed April 10, 2020.

California Energy Commission, *Gas Consumption by County*, http://www.ecdms.energy. ca.gov/gasbycounty.aspx, accessed April 10, 2020.

California Geological Survey, *Earthquake Zones of Required Investigation, Long Beach Quadrangle*, http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/LONG_BEACH_EZRIM.pdf, updated 2016.

California Geological Survey, *Fault Activity Map of California (2010)*, https://maps.conservation.ca.gov/cgs/fam/App/index.html, accessed January 5, 2020.

California Water Service, *2015 Urban Water Management Plan – Dominguez District*, June 2016.

CalRecycle, *Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility*, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility, accessed February 3, 2020.

CalRecycle, *SWIS Facility/Site Search*, https://www2.calrecycle.ca.gov/SWFacilities/Directory/, accessed February 3, 2020.

CalRecycle, *Transported Solid Waste*, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Statewide/TransportedSolidWaste, accessed February 3, 2020.

City of Carson, *Carson General Plan Environmental Impact Report*, July 11, 2003.

City of Carson, *Carson General Plan,* October 11, 2004.

City of Carson, *Carson Master Plan of Bikeways*, August 2013.

City of Carson, *Carson Municipal Code*, current through Ordinance No. 19-1936, passed September 3, 2019.

City of Carson, *City Transition Letter*, https://ci.carson.ca.us/content/files/pdfs/publicworks/CityTranisitonLetter-WR-Signed.pdf, accessed February 3, 2020.

City of Carson, *Climate Action Plan*, December 2017.

City of Carson, Community Services Parks and Recreation, *About Us*, https://ci.carson.ca.us/CommunityServices/Parks_Rec_AboutUs.aspx, accessed February 24, 2020.

City of Carson, *Energy Efficiency Climate Action Plan,* December 2015.

County of Los Angeles, *Los Angeles County Code Section 12.08.490 and 12.08.400*, November 7, 2019.

Department of Toxic Substances Control, *EnviroStor Website*, https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29, accessed February 10, 2020.

Elliot H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.

Environmental Health Perspectives, *Vehicle Motion Alarms: Necessity, Noise Pollution, or Both?*, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018517/, accessed April 13, 2020.

Federal Emergency Management Agency, *Flood Insurance Rate Map Los Angeles County, California and Incorporated Areas, Map No. 06037C1935F, Panel 1935 of 2350*, September 26, 2008.

Federal Highway Administration, *The Audible Landscape: A Manual for Highway Noise and Land Use*, https://www.fhwa.dot.gov/ENVIRonment/noise/noise_compatible_planning/federal_approach/audible_landscape/al04.cfm, accessed April 15, 2020.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Fehr and Peers, *Panattoni Warehouse Project: Vehicle Miles Traveled Analysis*, May 19, 2020.

Ganddini Group, Inc., *Panattoni Project Traffic Impact Analysis*, June 3, 2020.

Google Earth, 2020.

Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.

Los Angeles County Airport Land Use Commission, *Airport Influence Area – Long Beach Airport,* http://planning.lacounty.gov/assets/upl/project/aluc_airport-long-beach.pdf, dated May 13, 2003.

Los Angeles County Department of Regional Planning, *Los Angeles County Airport Land Use Plan*, dated December 1, 2004.

Los Angeles County Metropolitan Transportation Authority, *2010 Congestion Management Program*, 2010.

Los Angeles Unified School District, *Local District South Map*, dated May 2015, https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/33/South.pdf.

Office of Planning and Research, California, *General Plan Guidelines*, October 2003.

Scripps Institution of Oceanography, *Carbon Dioxide Concentration at Mauna Loa Observatory*, https://scripps.ucsd.edu/programs/keelingcurve/, accessed April 10, 2020.

South Coast Air Quality Management District, *2016 Air Quality Management Plan*, March 3, 2017.

South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and [Proposed] Brief of Amicus Curiae*, April 6, 2015.

South Coast Air Quality Management District, *California Emissions Estimator Model (CalEEMod)*, version 2016.3.2.

South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993.

South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, revised July 2008.

South Coast Air Quality Management District, *South Coast AQMD Air Quality Significance Thresholds*, revised April 2019, http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf, accessed April 15, 2020.

Southern California Association of Governments, *2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction*, https://www.scag.ca.gov/Documents/2016_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf, accessed February 11, 2020.

Southern California Edison, *The Clean Power and Electrification Pathway*, https://newsroom.edison.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/166/files/20187/g17-pathway-to-2030-white-paper.pdf, accessed April 15, 2020.

Southern California Geotechnical, *Geotechnical Investigation, Three Proposed Warehouses, 2112 East 223rd Street, Carson, California, for Panattoni Development Company, Inc.*, dated October 28, 2019.

The Natelson Company, Inc., *Employment Density Study Summary Report*, Table 4A (Derivation of Square Feet per Employee Based On: Average Employees per Acre, Average FAR, Los Angeles County), October 31, 2001.

Thienes Engineering, Inc., *Low Impact Development (LID) for 2112 East 223rd Street, Carson*, California 90810, January 6, 2020.

Thienes Engineering, Inc., *Preliminary Hydrology Calculations*, November 21, 2019.

U.S. Department of Transportation, *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, updated August 24, 2017, https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm, accessed on April 13, 2020

U.S. Environmental Protection Agency, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed April 9, 2020.

U.S. Environmental Protection Agency, *Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances*, December 1971.

U.S. Green Building Council, *Green Building Costs and Savings*, https://www.usgbc.org/articles/green-building-costs-and-savings, accessed April 10, 2020.

Water Replenishment District of Southern California, *Groundwater Basins Master Plan*, September 2016.

Written Correspondence: Adriana Raza, Customer Service Specialist, Sanitation Districts of Los Angeles County, October 15, 2019.

Written Correspondence: Daniel Armendariz, District Manager, California Water Service Company, September 24, 2019.

4.23 REPORT PREPARATION PERSONNEL

City of Carson (Lead Agency)
701 East Carson Street
Carson, California 90745
310.952.1761

Max Castillo, Assistant Planner
Alvie Betancourt, Planning Manager

Michael Baker International
(CEQA Consultant)
5 Hutton Centre Drive, Suite 500
Santa Ana, California 92707
949.472.3505

Eddie Torres, Quality Assurance/Quality Control
Kristen Bogue, Project Director
Alicia E. Gonzalez, Project Manager
Winnie Woo, Environmental Analyst
Danielle Regimbal, Air Quality/GHG/Noise Specialist
Pierre Glaize, Air Quality/GHG/Noise Specialist
Faye Stroud, Graphic Artist
Linda Broberg, Word Processor

Ganddini Group, Inc.
(Traffic Impact Analysis Consultant)
550 Parkcenter Drive, Suite 202
Santa Ana, California 92705
714.795.3100

Giancarlo Ganddini, PE, PTP, Principal

Fehr & Peers
(Vehicle Miles Travelled Analysis Consultant)
600 Wilshire Blvd, Suite 1050
Los Angeles, CA 90017
213.261.3050

Miguel Núñez, AICP, Senior Associate

This page intentionally left blank.

5.0 CONSULTANT RECOMMENDATION

Based on the information and environmental analysis contained in the Initial Study/Environmental Checklist, we recommend that the City of Carson prepare a mitigated negative declaration for the Panattoni Project. We find that the proposed project could have a significant effect on a number of environmental issues, but that mitigation measures have been identified that reduce such impacts to a less than significant level. We recommend that the second category be selected for the City of Carson's determination (see Section 6.0, *Lead Agency Determination*).

June 8, 2020

Date

Alicia Gonzalez, Project Manager
Michael Baker International

This page intentionally left blank.

6.0 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☒

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Signature: _____

Title: Assistant Planner

Printed Name: Max Castillo

Agency: City of Carson

Date: 6/8/20

This page intentionally left blank.